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FARMERS OF INDIA

VOLUME I

PUNJAB, HIMACHAL PRADESH
JAMMU & KASHMIR



A typical view of the countryside in Himachal Pradesh

FARMERS OF INDIA

VOLUME I

PUNJAB, HIMACHAL PRADESH
JAMMU & KASHMIR

BY

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PUBLISHED BY

INDIAN COUNCIL OF AGRICULTURAL RESEARCH
NEW DELHI

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FIRST PRINTED OCTOBER, 1959

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New Delhi*

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Published by Prakash Krishen for the Indian Council of Agricultural Research, New Delhi, and printed
by Pyarelal Sah at the Times of India Press, Bombay, India.

FOREWORD

India is a large country. An area of thirteen million square miles, three thousand miles of sea coast, soils ranging from marshy clays to rocks, altitudes varying from sea level to 29,000 ft., snow wastes intermingling with forests, pastures, cultivated lands and deserts, six-hundred thousand villages, forty million people, an endless variety of life between the snow-bound mountains and the dark tropical forests—these are just a few details in the grand perspective of this sub-continent. To the outsider, baffled by the heterogeneity of its races and their languages, beliefs and traditions, the country means little more than a geographical unit. To its own people it is a vast complex world whose organic unity is taken for granted. But, whether one tries to describe India in terms of its geography and natural resources, or explains it historically, the picture remains incomplete. Only a comprehensive view of the wide canvas of Indian life can lead to a proper understanding of the country and its people.

From the Himalayas to Kanyakumari, and from Rajasthan to the North East Frontier Agency, there is a running continuity of culture, the Indian Culture. It derives its identity and strength from a common history and the traditions built through the ages. Despite the proliferation of customs and beliefs, and the multiplicity of races and tribes, this common culture has endured for centuries and is still a living force. Deep below all the visible differences is an organic unity which holds together all the people in the country. Thus, the Punjabi and the Malayalee, the Andhra and the Kannadiga, the Bihari and the Bengali are all one in their basic emotions and urges. They live under different climes, dress differently, eat differently, but possess a common heritage. The more one studies the existing diversity, the more is one excited to find a latent identity behind it. All superficial distinctions disappear, and different tribes and races appear as branches of one big family. This creates a vision of unity, a feeling that the teeming millions form one people, one nation. We talk of the need for emotional integration of the people, and yet do little to bring about a realisation of the fact that an organic integration already exists.

The cultural unity of the Indian people springs largely from the agricultural character of the country. Even today, when industrialisation is progressing rapidly and large scale migration is taking place from rural areas to cities and towns, 82 per cent. of the population lives in villages and is dependent on land. The plough is still the symbol of the life of this great mass of humanity. Since time immemorial, agriculture has been a kind of religion in the country. In fact, the peasantry, irrespective of its racial and caste sub-divisions, practises only this religion. The gods that are worshipped and the rituals with which they are honoured belong to the

FOREWORD

soil, and are more or less the same all over the country. To understand India, one must, therefore, study its village life.

The new series of publications on Farmers of India, sponsored by the Indian Council of Agricultural Research, fulfils a great need. It aims at telling the story of the sons of the soil, of their character, community life and economic condition. The account is realistic and illuminated by a profound understanding of rural life in different States as shaped by history, geography, climate and religion. No essential detail has been omitted—topography, soils, climate, vegetation, crops, agricultural practices, farming communities, village organization, folklore, etc., are all included in the panorama of life described. Because of the inner unity of the treatment and the intensely human touch given to it, the whole account throbs with life and vitality. The inclusion of a large number of pictures and maps adds further to its charm. I congratulate Dr. M. S. Randhawa, Vice-President, Indian Council of Agricultural Research for conceiving and executing this project, and hope that the series 'Farmers of India' would serve to promote love and unity in the country and better understanding of it in other parts of the world.

New Delhi
August 20, 1959

PUNJABRAO DESHMUKH
MINISTER FOR AGRICULTURE
GOVERNMENT OF INDIA

PREFACE

Since the scheme of community development was inaugurated by Shri Jawaharlal Nehru, Prime Minister of India, in October, 1953, a good deal of interest has been aroused in this country as well as abroad about village India. People want to know about the farmers of different States of India, the environment in which they live, their soils, crops, villages and homes. What are the farm practices adopted by the agriculturists in different States? What do they eat and how do they amuse themselves? As one travels in a railway train from Chandigarh in the north to Trivandrum in the south, and from Bombay in the west to Shillong in the east, one sees the farmers in the different States of India ploughing their fields, harvesting their crops, and winnowing their grain. From the pine clad mountains of the Himalayas in the north to the coconut groves in the south, one sees such a diversity of climatic and soil conditions as well as ethnic composition of the rural population which is baffling indeed. For a long time the need of a book which could give information about the climate, soils, crops, the farming communities, their villages and homes and their culture was badly felt. At the meeting of the Advisory Board of the Indian Council of Agricultural Research held in December, 1955, I suggested that the Council should undertake to produce a series of books on the farmers of different States of India. India is a vast country with such diverse conditions that there is little understanding of the agricultural problems of various States, even among people who are entrusted with the administration of agriculture and of laying down of policies for its development. The experience of most of the administrators who are concerned with agriculture is limited to the particular State in which they were born or had the opportunity to work. It requires at least five years of intensive touring, study and observation to develop an All-India view of agriculture. The need of a series of books which could promote better understanding of the problems of the farmers of various States was readily recognised and it was decided to bring out a series of books on the 'Farmers of India'.

This volume which is the first of the series deals with the States of Punjab, Himachal Pradesh, and Jammu and Kashmir. The account of the Punjab is largely based on the observations which I made and recorded while working as Director-General of Rehabilitation and Development Commissioner. This was a type of work which provided me unique opportunity of seeing a very large number of villages from Lahaul and Kulu in the Himalayas down to the sand dunes of Hissar. Apart from my own observations, full use has been made of material from the District Gazetteers which contain objective observations of the British administrators of the past. The chapters on Himachal Pradesh have largely been compiled from material provided

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by Dr. L. S. Negi, Director of Agriculture, Himachal Pradesh. The chapters on Jammu and Kashmir have been compiled by Shri Prem Nath from a study of all the available literature on this area, as well as from the notes provided by Shri G. M. Butt, Director of Agriculture of the State. In this connection special mention is to be made of standard works like 'Ancient Geography of Kashmir' by M. A. Stein, 'The Valley of Kashmir' by Walter Lawrence, 'The Jammu and Kashmir Territories' by Frederick Drew, 'This is Kashmir' by Pearce Gervis, and 'Magic Ladakh' by Major Gompertz which have been drawn upon liberally for completing the account of the farmers of this State.

It may be mentioned that the Indian Council of Agricultural Research took interest earlier also in the farmers of the different States of India. It was in 1941 that Dr. W. Burns, Agricultural Commissioner brought out a book entitled 'Sons of the Soil'. Dr. Burns himself contributed an article on 'The Maratha Cultivator', and the Directors of Agriculture contributed material on the farmers of their respective States. As a pioneer effort, it was commendable indeed, though it lacked unity of treatment. Moreover, the farmers were described in isolation from their environment, the rocks and mountains, the soils, the natural vegetation which surrounds their habitations, and their crops. One can only appreciate the ebony-like frames of the farmers of Tamilnad, Mysore and Kerala against the background of the coconut palms, and paddy fields under a tropical Sun. How handsome they appear in their natural surroundings! The hill-men of Ladakh, Lahaul, Spiti, Kulu, Kangra, Garhwal and Kumaon appear charming in their mountains. The hardy peasants of the Punjab with their wheatish complexion harmonize with the brown soil which they cultivate, and the dark Marathas seem to be the natural product of the black cotton soil of Central India and Deccan.

My travels in the different States of India in connection with the meetings of the Central Commodity Committees and inspections of Research Institutes provided a unique opportunity for observing the farmers of the different States of India, their villages, homes, crops, and cattle. I also got a first-hand experience of the climate in India, and was surprised that while in the month of January people shiver in North India, electric fans continue to whirl in Kerala and Tamilnad.

There is such diversity in climate, soils, crops and people in the Indian sub-continent which is unmatched by any other country in the world and to generalize about Indian agriculture is fatal indeed. When some people call the Indian farmers as conservative, backward or indifferent, probably the observation is based on conditions prevailing in some particular State. There are some States in India which are comparatively much more advanced in agriculture as compared with others such as Bombay, Madras, Punjab and Andhra. Not only the Departments of Agriculture in these States are better organised and have contributed to their advancement,

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at the same time credit also largely goes to the peasantry. It is hard to match the skill of the Sikh Jat farmer from Jullundur district in extensive cultivation particularly of wheat crop where skill and stamina is required. For diversified agriculture, the unlimited patience and intelligence of the Gounders of Coimbatore district in Madras State is unrivalled. On small patches of land which are irrigated by small wells fitted with electricity, they raise precious crops of bananas, sugarcane, betel-vine and paddy. The Kammas of Guntur district in Andhra Pradesh are skilful farmers with rich experience of cultivation of commercial crops like tobacco and turmeric. The line sowing of crops and use of fertilizers in Guntur are visible indices of progressive agriculture. The Patels of Kaira district of Gujerat are also enterprising farmers who have developed a system of underground irrigation with the aid of cement pipes to economise water in the sandy soil of Kaira. Apart from this their Co-operative Milk Scheme, the running of which requires high business acumen is in itself an index of their progressive nature. In fact, farmers of the different States of India have probably much more to learn from each other than from those of other countries with entirely different climatic, social and economic conditions.

The photographs which serve as illustrations to the text are an essential and vital part of this book. One need hardly say, that no picture in words however vivid can convey as much as a good photograph. In illustrating books on agriculture including this series on 'Farmers of India', I had the unique privilege of utilizing the services of a talented photographer Hari Krishan Gorkha. He is essentially the photographer of the great outdoors, and is extremely sensitive to the beauty of the landscape, crops and the people. His steadiness is such that he can take panoramas without any gadget. These panoramas illustrate the landscape of the different States in a most graphic manner. Apart from eye for the beauty of landscape, it is his sympathy for the common people who live in the villages of India that is responsible for some eloquent studies of the farmer types of different States. In these photographs we see them as living human beings with feelings and emotions working in their familiar environment.

Photographing unknown women is a hazardous venture anywhere, and much more so in India. While the women in the Himalayas and Kerala raise no objection if their men folk are not nearby, in the Punjab it may be a real invitation for at least a grievous injury. The first question they ask is as to whether the photographer had not a mother or sister of his own to photograph. In this task, the women social education organisers under the Community Projects and National Extension Service Schemes provided very useful assistance. When they explained that the photographs were required as illustrations for books for the interpretation of rural culture and with no evil purpose, the response was always encouraging. Village school

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girls also participated with considerable zeal. In any case, our experience was far more encouraging as compared with that of Sir George Grierson who explaining his first venture in photographing thus writes in the introduction to his book entitled 'Peasants of Bihar'.

"The difficulties experienced by the writer in taking some of these pictures were great. The most ludicrous reports spread through the city concerning his work. The camera of course was looked upon as a fearful engine of destruction, and sometimes half an hour has been wasted in futile diplomacy to persuade an old lady to allow the lens to be pointed at her. Under these circumstances photographs had almost always to be taken by the instantaneous process, which, however certain it may be in the hands of the professional, frequently disappoints the mere amateur. The last photograph the writer took—that of a native house—was spoilt because the grandmother of the family refused to allow any of the children to appear in the picture, her reason being that the Government was building the bridge across the Gandak and wanted children to bury under its foundations. Just, however, as the plate was exposed, one of the little boys determined to immortalize himself, and leaped in front of the lens to the dismay of the female members of his family. He had his wish in appearing in the picture, but he was so near the lens that he covered half of it with his shoulders. On other occasions the writer was believed to be collecting carts and boats for the Egyptian war, or to be counting the wells in the country, because he knew a famine was approaching, and so on *ad infinitum*".

There has been a remarkable advance in photography since then. The modern cameras and films are so fast that before a person realizes that he is being photographed and starts protesting, his photograph had already been taken. This reminds me of an incident near Cheruthurthy in Kerala in the month of January, 1958, while we were on our way to Trichur after seeing the crop of Sea Island Cotton at Patambi. An attractive Moplah woman was walking on the road carrying a huge basket. We stopped the car, Gorkha followed her, and before she could realize what had happened, he had already taken two snaps. When she saw her passage blocked by a handsome young man, she was heard mildly protesting in Malayalam, "What are you doing to me?" She gave a charming photograph, one of the prettiest in the gallery of women collected by Gorkha. How many photographs were taken in this manner, it is hard to tell. But there is little doubt that Gorkha has been able to convey the grace and unsophisticated charm of the women of the villages of India successfully in his photographs, which serve as illustrations to this book.

I am fully conscious of the short-comings of a work of this nature. Statistical information on crops and their production particularly relating to Himachal Pradesh and Jammu & Kashmir is largely lacking. There are also difficulties in an objective appraisal of the character of the different farming communities as on account of spread of education and other factors,

P R E F A C E

people have become unduly sensitive to criticism, and they would like only their good points to be mentioned and their defects to be ignored. The limitation imposed by this factor to a large extent detracts from the value of the observations made. However, this is what could not be helped and I hope in subsequent editions these short-comings would perhaps largely be overcome. Nevertheless, it is better to make a start and provide whatever material is available rather than waiting for perfection. I have every hope that the books under this series would be read with interest by all people who are interested in Indian agriculture and the farmers of India.

New Delhi
September 15, 1959

M. S. RANDHAWA
VICE-PRESIDENT
INDIAN COUNCIL OF AGRICULTURAL RESEARCH

Of all occupations from which gain is secured, there is none better than agriculture, nothing more productive, nothing sweeter, nothing more worthy of a free man.

Cicero, de Officiis, Bk. I, Sec. 42

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SECTION I
THE PUNJAB

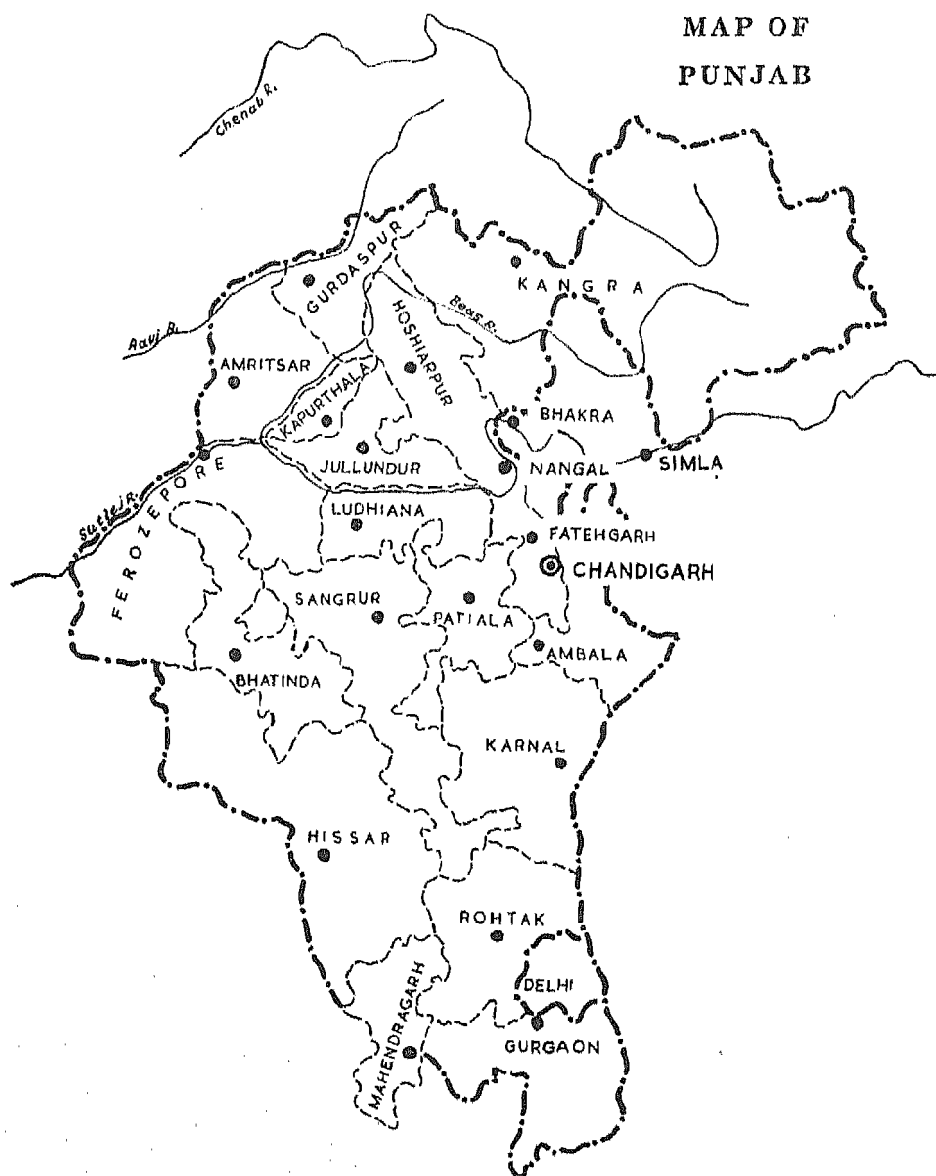


FIG. 1. Map of the Punjab showing administrative divisions and district headquarters

CHAPTER I

THE PUNJAB

THE Punjab State as now constituted came into existence in November, 1956, as a result of the integration of the States of East Punjab and PEPSU which were born amid the stampede and suffering that followed in the wake of the partition of the old province of Punjab in 1947. The State extends roughly from 28°50' to 33°N. and from 73°80' to 78°70' E., and is bounded on the west by Pakistan, on the north by Jammu and Kashmir, Himachal Pradesh and Tibet, on the east by Uttar Pradesh and Delhi, and on the south-west by Rajasthan. It is divided into 18 districts, namely, Hissar, Rohtak, Gurgaon, Karnal, Ambala, Simla, Kangra, Hoshiarpur, Jullundur, Ludhiana, Ferozepore, Amritsar, Gurdaspur, Bhatinda, Kapurthala, Mahendragarh, Patiala and Sangrur. These districts comprise 73 tehsils and 21,516 villages.

The total population of the Punjab, according to 1951 Census, is 16,135,000, which gives a density of 340 persons per square mile as against the average density of 281 for the country as a whole. The agricultural population is about 65 per cent. of the total, with a concentration of about 80 per cent. in the rural areas. The non-agricultural communities are mainly concentrated in a thin belt along the highway passing through Ambala, Ludhiana, Jullundur and Amritsar districts. The peasant proprietors constitute about 60 per cent. of the agricultural population. Those who may be classed as pure tenants are only about one-third of their number, and the agricultural labourers just a little over one-sixth. The non-cultivating owners are only about four per cent. of the total.

The State shows three well-defined natural regions: (i) the Hill Region, lying amid the Himalayas and the upper reaches of the Siwaliks; (ii) the Sub-montane Region at the foot of the Siwalik hills; and (iii) the Plains extending from the Ravi to the Jamuna. These regions are further divided into following sub-regions:

	<i>Regions</i>	<i>Sub-regions</i>	<i>Areas Covered</i>
Pahari Area.	{ Hill Region.	1. Inner Himalayan.	Lahaul and Spiti (Kangra district).
		2. Mid-Himalayan.	Kulu Sub-division (Kangra district).
		3. Outer Himalayan.	Kangra district (except Kulu, Lahaul and Spiti), and Simla.

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	<i>Regions</i>	<i>Sub-regions</i>	<i>Areas Covered</i>
Punjabi Speaking Area.	{	Sub-montane Region.	Una tehsil and part of Hoshiarpur tehsil (Hoshiarpur district); Pathankot tehsil (Gurdaspur district); Rupar and Naraingarh tehsils (Ambala district).
		(1) Malwa.	Ferozepore, Ludhiana, Patiala, Bhatinda, Sangrur districts (except Jind and Nirwana tehsils).
		(2) Majha.	Amritsar and Gurdaspur districts (except Pathankot tehsil).
		(3) Doaba.	Jullundur, Kapurthala and Hoshiarpur districts (except Una tehsil).
Hindi Speaking Area.		Haryana.	Hissar, Rohtak, Gurgaon, Karnal and Mahendragarh districts; Jagadhri and Ambala tehsils of Ambala district; Jind and Nirwana tehsils of Sangrur district.

Hill Region. The border chain which separates the level plains from the mountain country runs in uniform course from Hajipur on the Beas to Rupar on the banks of the Sutlej. Penetrating into the interior of the mountain system the hills dissolve into gentle slopes and platforms of tableland, and valleys become convulsed and upheaved. The low hills appear like ripples of stone, and the eye rests uninterrupted on a chain of high mountains, the majestic Dhaula Dhar, whose peaks rise at places to heights of more than 15,000 feet. The Dhaula Dhar separates Kangra from Chamba, and ultimately sinks upon the southern bank of the Beas in the neighbourhood of Dalhousie.

The Kangra basin is about 26 miles; its breadth is irregular. Towards its eastern extremity it extends in one continuous slope from the base of the hills to the bed of the river Beas, a distance of 20 miles. From end-to-end it is broken by transverse ridges and numerous streams which flow sometimes deep and smooth, and sometimes noisily foaming in the rocky beds.

The hamlets scattered all over the Valley, the tea plantations surrounding Palampur and Baijnath and the backdrop of the Himalayas combine to create a scene of exquisite beauty. As Mr. Barnes observes "No scenery presents such sublime and delightful contrasts. Below lies the plains, a

picture of rural loveliness and repose; the surface is covered with the richest cultivation, irrigated by streams which descend from perennial snows and interspersed with homesteads buried in the midst of groves and fruit trees. Turning from this scene of peaceful beauty the stern and majestic hills confront us. Their sides are furrowed with precipitous water courses; forests of oak cloth their flanks and higher up give place to gloomy and funereal pines; above all are wastes of snow or pyramidal masses of granite too perpendicular for the snow to rest on ”.

The Kangra basin finally merges into the Kulu Valley lying at the foot of the Mid-Himalayas which have a mean elevation of 18,000 ft. No description can do justice to the beauty of this tract. Luxuriant rice crops extending for miles blend with the Alpine forests creating a chequered pattern of gold and green. The tiny hamlets, the sweet odours filling the air, the elfin human figures in strange costumes looking like wood spirits, the ever-changing skies, all combine to throw a magic spell over the new-comer to these areas.

The motor road ends at Manali, from where a trade route, suitable for pack ponies, crosses over the Rohtang and Baralacha passes to Lahaul, Ladakh, Spiti, Yarkand, and other remote regions in Central Asia.

Lahaul comprises an area of 1,764 sq. miles. The drainage of the tract goes to the Chenab river, though a small portion is also deposited in the Indus. Starting from Khoksar and Darcha (12,000 ft.), the habitation extends along the Chandra and the Bhaga rivers. Range upon range of high mountains festooned with glaciers compass the valley on all sides. The highest of these is 21,000 ft., and the minimum elevation of the ground level is 9,000 ft. near the border of the Chamba State. The cultivation is done between 9,000 ft. and 12,000 ft. The area is very sparsely populated, the total population being only about ten thousand.

Lahaul is sub-divided into (i) Rangloir or the Chandra Valley, (ii) Garah or Punan, (iii) Bhaga Valley, and (iv) Patan. Of these, the most fertile are the Patan sub-division and the lower part of Garah where clumps of pollard willows inter-mixed with terraced fields and a profusion of buttercups, daisies, blue poppies, and wild roses are met with.

The climate is dry and cold, varying from severe cold in winter to mild warm in summer. The rainfall is scanty. During the winter a large number of Lahaulis migrate to Kulu and other places and return to their country in the beginning of April or May when they work hard preparing their fields for the sowing season.

The route from Lahaul to Spiti takes the traveller over the Morang Pass (15,000 ft.). Some of the most gorgeous glaciers of the Himalayas are met with in the course of this climb. Spiti is a triangle of 3,000 sq. miles with the Kunzum range, the Western Himalayas and the Mid-Himalayas forming its sides. Some of the peaks have an elevation of 23,000 ft., while the lowest place in the valley is 10,000 ft. above sea-level. The Spiti river,

which is its main stream, rises at the base of a peak 20,000 ft. high, and leaves the Valley at its north-east corner by a narrow gorge hemmed in by lofty mountains. In the south-west corner is the Pin Valley, with its river of the same name which is a tributary of the Spiti river.

Sub-montane Region. To the south of, and running parallel with the mountain wall of the Himalayas is the Siwalik Range. Its course is almost straight, and its breadth nearly uniform. As it leaves the Sutlej it consists mainly of high stony and sandy hillocks. Proceeding north the range becomes more distinct in its outline, and broad tablelands come in view. Beyond Manaswal the tablelands cease, and the interior of the range becomes split up into a number of sharp spurs or short steep ranges of irregular formation, which for the most part are generally barren. From Hoshiarpur to Dharamsala the hills begin to improve, rising gradually from the valleys and finally merging into the mountain country of the Kangra Valley. At the foot of the Siwaliks lies the sub-montane belt varying from 100 to 200 miles in breadth. This tract with the background of hills makes a refreshing break in the stereotyped configuration of the plains.

Hill torrents or *chos* traverse the tract at short distances. A *cho* rises in the hills below the watershed, leaves them by a narrow outlet, and widens on its way through the plains until it breaks up into a number of branches. The sand drifting in its waters gets deposited along the sides of its channels and aided by wind action spreads far and wide over the soil. During the hot weather, wind storms lead to a heaping up of the sand at different places, which in turn causes the *chos* to change their direction. This has created a very difficult soil problem for the whole region. A village which may have benefited at one time from the debris of good lands situated higher up in the course of the *cho* would eventually have its own soil destroyed by the same process. The people of the tract have a saying that a *cho* is 'gold in front and brass behind', which aptly expresses this effect. The menace is now being fought through schemes of afforestation and *cho* training.

The sub-montane region comprises parts of Hoshiarpur, Gurdaspur, and Ambala districts. The soil consists of disintegrated Siwalik sand-stone and alluvium, which differ widely in appearance and agricultural quality from place to place. In the fertile areas mango groves and field crops flourish, but the *cho*-riddled parts are mostly barren.

Plains. The whole central Punjab is a vast alluvial plain with a gradual slope towards the south-west which seldom exceeds two feet in a mile and has thus set the pace and direction of the rivers in a most advantageous way. Each stream has cut for itself a wide valley, which lies well below the level of the plain, and whose banks mark the extreme limits to which the waters can stray. In the winter the rivers shrink, but as the mountain snow melts at the approach of the hot season they rise and overflow the surrounding country often to a distance of several miles on either side. After the rainy season the waters abate, leaving wide expanses of fertile loam and sand.

Further from the river the soil is firm and rich, and a variety of crops is to be found.

A bird's-eye view of the plains shows a continuous stretch of land, unbroken by hills or valleys, and dotted with clusters of mud-roofed houses surrounded by green fields which gradually peter out into brown earth. In richer areas, the fields of one village adjoin those of the next, creating an impression of a continuous habitation. The western part of the plains is distinctly more thickly populated and better developed than the eastern part, mainly on account of its canal system. After the Bhakra canals are completed the latter is also expected to develop rapidly.

In point of fertility, the Punjab plains rank with the best lands in India. From Ludhiana to the Jamuna valley, and along the Jamuna to the neighbourhood of Delhi, the country is substantially a portion of the great Ganges plain. The westerly portion is drained by the Sutlej, the Beas, and the Ravi, which between themselves form two *doābs* or river locked tracts, viz., the Bist Jullundur, also called the Bist Doab, lying between the Beas and the Sutlej, and the Bari, contained between the Beas and the Ravi. The soil throughout is rich and the climate very good from the agricultural point of view.

Languages and Dialects. The languages and dialects spoken in the Punjab are quite numerous. In the hills each considerable mountain range creates different forms of speech. The Kulu people speak *Kului*. *Gaddi* is spoken by the inhabitants of the range which divides Kangra from Chamba, and *Hinduri* by the people of the lower hills. In Lahaul and Spiti, the Tibetan language is in vogue. The dialects of Punjabi in use in the Siwaliks are over a score in number. In the central and western districts of the plains, Punjabi is spoken. In the southern districts the people generally speak western Hindi, Hariani, Rajasthani, Braj Bhasha, Ahirwal, and Bagri.

Like other north Indian languages, Punjabi has evolved out of the language spoken by the Aryans when they penetrated into India. Vedic words like *pitā* (father), *jangh* (leg), *kan* (crow), *dohtra* (daughter's son), *kānān* (one-eyed), *pindā* (body), *anger* (embers), *phul* (flower) continue to be used in the everyday speech of the Punjabis. A large number of Sanskrit words — which the original Aryan language when refined and subjected to the discipline of grammar came to be called — are also found in Punjabi in slightly changed forms. Some other words are exactly similar to those of the Pali language. While enlarging its vocabulary during centuries of use it also took in a good number of Persian, Arabic and even Turkish words.

In spite of a striking diversity in the physical conditions, racial characters, customs, living habits, and spoken dialects found in the Punjab, the cultural unity of the people is readily discernible in the general uniformity of their names. Barring the inhabitants of the far-flung areas of Lahaul and Spiti inhabiting hinterland, whose language is predominantly of Tibetan extraction, the people derive their names from common root-words, which are

connected with the names of deities, ancient heroes, festivals, stars and planets, months of the *Vikrami* calendar, fruits, flowers and trees, vocations and professions, worldly aspirations, etc., etc. Sometimes, parents name their children after things humble and mean to ward off the evil eye or the mischievous spirits. Again many are named after favourite cereals and farm products.

The names of men among the Sikhs, and many of the Kshatriya and Rajput tribes usually end with 'Singh', meaning 'lion', which shows their martial instincts. This suffix may, however, be used in combination with any other name without regard for relevance. Thus, it is common to join it with the names of delicate-flowers, towns, farm commodities, cereals, etc., and the names so coined appear amusing on literal translation. The names of Sikh women usually end with 'Kaur'. The Scheduled Castes have generally one-word names.

CHAPTER II

CLIMATE

THE State has a wide variety of climates, ranging from alpine to hot and arid. The climate of the plains is influenced by their distance from the sea and the mountains in the north. It is very hot in summer and markedly cold in winter. In May and June the temperature rises to 110°F. – 120°F. , while in December and January it drops down to about 40°F. The summer lasts from April to the end of June, and its intensity is relieved only by dust and thunder storms which are sometimes accompanied by rain. During the monsoon season the heat, although comparatively mild on rainy days, is still intense. It begins to moderate about the middle of September. The months of October and November, during which the weather is generally dry and the temperature falls, are the most pleasant part of the year. Winter lasts from December to March.

The factor of elevation makes the climate of the Himalayan tracts very different from that of the plains. Still more striking is the contrast between the outer and mid-Himalayan climate and the Central Asian trans-Himalayan climate of Spiti and Lahaul. The seasons, however, broadly correspond to those of the plains. The winter is very severe. The lowest temperature recorded at Simla and Kayelang is 17°F. and -3.5°F. , respectively. Snow-fall starts from December and lasts almost till the beginning of summer. During January and February thick fogs occur frequently. The temperature begins to rise from March, and the summer season is cool and pleasant. The average rainfall varies from 20" in Kayelang to 117" in Dharamsala.

The winter or north-east monsoon does not penetrate into the Punjab, and only light winds blow during the cold season. Whatever rain is received is due to the land storms which originate beyond the western frontier. Towards the close of the summer the south-west monsoon coming from the Bay of Bengal begins to establish itself. The rain clouds striking the eastern Himalayas are deflected to the west and forced up the plains by the south-eastern winds. The lower ranges of the mountains receive in this way very heavy precipitation. The monsoon exhausts itself in its progression through the plains, and dies away fairly rapidly towards the south and the west. However, a part of the Bombay branch of the monsoon penetrates from time to time to the south-east portions, and if it is sucked into the Bay current the result is widespread rain. Table 4 in the Appendix shows the distribution of annual rainfall in important districts of the State.

CHAPTER III

GEOLOGY

GEOLOGICALLY the Punjab falls into two natural divisions: the plains and the Himalayas. The plains consist almost entirely of the Indo-Gangetic alluvium, but also contain beds of sedimentary rocks of a transition age, which form a series of outliers of the Aravalli rocks at Delhi and to the south and south-east, whence they are known as the Delhi system. They are composed of a lower group of slates and limestones and an upper and much thicker group of quartzites.

The Himalayas fall into three broad divisions: the northern, the central, and the southern. The northern, known as the Tibetan zone, extends through Kanawar and Spiti into Lahaul, and affords an almost unbroken sequence of sedimentary deposits ranging from Cambrian to Cretaceous. The oldest beds are slates and quartzites, for the most part unfossiliferous, but containing in the higher beds trilobites and other fossils of Middle and Upper Cambrian age. These are overlain, unconformably, by conglomerate, followed by a great mass of red quartzite, believed to be of Lower Silurian age, and passing up into limestone and marl with Silurian fossils (trilobites, corals, etc.). The limestone gradually gives place to a white quartzite, which is one of the most characteristic horizons of the Himalayas. The quartzite is usually overlain by beds of Upper Permian age. Next in order is a conglomerate of variable thickness, overlain by calcareous sandstone and a bed of dark micaceous shale representing the Permian. The uppermost bed, known as the *Productus* shales, is found throughout the Himalayas, and contains Upper Permian brachiopods and ammonites. Above these shales is a thin shaly band with ammonites, known as the *Otoceras* beds, which passes into a vast thickness of limestone, intercalated by shale, and representing the whole of the Trias, and the Lower and probably Middle Jurassic. Fossils are numerous throughout, and representatives of all subdivisions in the Alpine Trias have been recognized. The limestones are succeeded by the well-known Spiti shales, famous for their ammonites. They are of Upper Jurassic age, and are overlain by the Giumal sandstone and Chikkim limestone and shales representing the Cretaceous system.

A broad zone of metamorphic, crystalline, and unfossiliferous rocks forms the axis of the Himalayas. The crystallines are partly intrusive, and partly the result of contact with the metamorphism of the Cambrian slates in the northern zone. South of the metamorphics, however, the unfossiliferous sedimentary rocks extend from Chamba through Kangra and the Simla Hill States area to Garhwal. They consist chiefly of limestones, slates, quartzites, and conglomerates of unknown age, and have been divided into

three systems. The Jaunsar system, regarded as the oldest, consists of grey slates overlain by blue limestones, followed by red slates and quartzites. In Jaunsar-Bawar and the east of Sirmur the quartzites are overlain by a considerable thickness of trap and volcanic ash. Above the Jaunsar system a great development of limestones forms most of the higher parts of the mountains running north from Deoban, and is known as the Deoban system. It is also seen in Sirmur, and in the Shali peak north of Simla. Above this follows the carbonaceous system, covering a greater part of the Lower Himalayas. At the base is a great thickness of grey slate with beds of grit and quartzite, resembling the Cambrian slates of the Tibetan zone. The slates, which are known as the infra-Blaini or Simla slates, are overlain by a characteristic series of conglomerates of boulder-slate and pink dolomitic limestone, which has been recognized in many parts of the Simla Hill States, while similar beds occur near Mussoorie on the east and in Chamba to the north-west. These are overlain by carbonaceous shale, followed by a quartzite bed of variable thickness, the two being included in the infra-Krol group, while the overlying Krol beds consist of limestone with subordinate bands of carbonaceous shale, the limestone attaining a great thickness in the Krol mountain near Solan.

The sub-Himalayan zone consists entirely of Tertiary beds, as a rule abutting against the pre-Tertiary rocks of the central and lower zones. The lowest or Sabathu group consists of grey and red gypseous shales, with subordinate bands of limestone. It is overlain conformably by the Dagshai group, composed of a great thickness of grey sandstones, with bright red nodular clays. These are followed by bright red or purple clays, overlain by sandstones which constitute the Kasauli group. The Upper Tertiary or Siwalik series is separated from all the older beds by one of the most marked structural features of the Himalayas, the main boundary fault, a great dislocation which can be traced for long distances along the lower parts of the range. Sandstones and red clay form the lowest group, being well seen at Nahan. They are succeeded, often unconformably, by many thousand feet of very soft grey sandstone with bands of clay. These are overlain by conglomerates which constitute the uppermost portion of the Siwalik series.

CHAPTER IV

SOILS

THE Punjab soils may be classified broadly into the following three groups: (i) soils of the Himalayan tract, (ii) soils of the sub-montane region, (iii) alluvial soils.

Agriculturally, the Himalayan tract is of secondary importance. The soils are not deep but have a well-developed profile. They are somewhat deficient in lime and phosphoric acid and have very little soluble salts, but are quite rich in humus. Their reaction is acidic to neutral.

The soils of the plains belong to the same class of alluvium which is typical of the Indo-Gangetic plains. Majority of the soils consist of a soil crust of varying depths perched on a permanent sand stratum in which the water-table is usually situated. The soil crust generally contains 10 to 15 per cent. clay and has an average depth of 10 inches. Sodium salts are usually present in the soil crust, and their control is a major problem which the State has to face. Chemically, the soils are adequately supplied with mineral matter. They are deficient in organic matter and have low nitrogen content. Most of the soils of the plains are sandy loams to loams in mechanical composition. They have no definite profile characteristics and are structureless. Soluble salts are found throughout the profile. *Kankar* (nodular CaCO_3) is usually met with in the lower layers.

Kulu Forest Soils. The general soil profiles in the Kulu Forest are related to the podsoles but have significant differences probably mainly due to the relatively high calcium content of the foot layer. These differences are brought out in the high degree of saturation of the various horizons. Provisionally these soils have been classified as 'Kulu Coniferous type of Podsol Group'.

Deodar appears to flourish well on the best developed soils of the podsol type. Where the profile indicates that it is a skeletal soil, the growth of *deodar* is extremely poor. Blue pine also appears to do well on a well developed podsol type. Spruce appears to be grown on a much wider range of soils. The best developed of the podsol profiles are those that grow *chir*.

Alluvial Soils. The Punjab alluvium being relatively a recent formation, a well developed soil profile showing horizons of eluviation and illuviation, is seldom met with.

The soil in the Doab has a good tilth, low alkalisation (the major exchangeable base being calcium) and low salt content. The soil under *wan* (*Salvadora persica*) is slightly inferior to that under *jand* (*Prosopis spicigera*). The soil under *okan* contains a high salt content. The soil under *karai* has a high pH, exchangeable sodium increasing towards the bottom of the profile. Growth

of grass has been observed under a wide range of soil conditions and cannot be taken as a suitable indicator of the quality of the soil. Manganese is found right up to the water-table with slight accumulation in certain sections of the profile in areas where the water-table is low. In general, an increase in the silt and clay fraction is accompanied by a slight increase in the manganese content of the soil and vice versa.

The Punjab has a special problem of soil erosion for which the Siwaliks are mainly responsible. Ravine erosion is most evident in the northern parts while, wind erosion has been taking place from Rajasthan to the lower belt of the State. From the point of view of soil erosion the soils of the State may be divided into three classes, viz. (i) the deeply ravined lands, (ii) the sandy uplands, and (iii) the southern dust fringe. Serious erosion is confined to the belt of the foothills and the sloping ground formed by the main Himalayan lower slopes and the Siwaliks. This area includes the greater part of the districts of Gurgaon, Ambala, Hoshiarpur, Kangra, and Gurdaspur.

Soils of the Districts. Except for three-fourths of Gurdaspur and Kangra, the Punjab districts possess alluvial soils. The semi-arid to arid conditions from north-east to south-western directions of the State has chiefly been responsible for the accumulation of salts (*kallar*) in the surface layers.

A brief description of the soils of some of the districts is given below:

Gurdaspur: The soils are loamy with a clay content below 10 per cent. They contain small quantities of lime but the magnesia content is high. They are well supplied in total potash and phosphoric acid but the quantities available are low.

Kangra: The soils are mostly clay loams and loams. They are generally acidic and the pH ranges between 5 and 6. They appear to be rich in nitrogen. Both total and available phosphoric acid and available potash are low.

Hoshiarpur: The soils are loams, fairly rich in total phosphoric acid, potash and nitrogen.

Jullundur: One soil sample is a sandy loam and the other a silt loam. In the silt loam the nitrogen content appears to be high.

Ferozepur: The soils are mostly sandy loam in character and definitely alkaline. Some of the soils contain large amounts of lime, but most of them are fairly rich in total potash, phosphoric acid and nitrogen.

Ambala: The soils are mostly loamy in texture with a preponderance of silt fractions. They are slightly alkaline and the soluble salts are low. They contain sufficient amounts of total potash and phosphoric acid but in general the nitrogen content is low.

Karnal: The soils are sandy to sandy loams in texture. They are highly alkaline with a pH near about 10. The bicarbonate of soda is predominant in the water extracts. The soils show a deficiency of available phosphoric acid; the surface soils appear to be well supplied in nitrogen.

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Rohtak: A few profiles from the Dry Farming Research Station, Rohtak, have been analysed. Generally the surface soils are loamy and the clay content increases with depth. The soils are neutral or slightly alkaline in reaction. They are deficient in phosphoric acid and nitrogen.

Hissar: The soils are loamy, the fine fractions increasing with depth. Their *pH* is between 7.5 and 9. The soluble salts are high in some soils, composed in almost equal proportion of sodium chloride and sodium sulphate. The nitrogen content ranges from zero to 0.06.

CHAPTER V

CROPS

AGRICULTURE is the main occupation of about 70 per cent. of the people of the Punjab. The State has an area of 30,288,000 acres which from the point of view of land utilization may be classified as follows: (i) Area under forests 835,000 acres; (ii) area not available for cultivation 7,863,000 acres; (iii) cultivable waste other than current fallows 2,398,000 acres; (iv) current fallows 1,770,000 acres, and (v) net area sown 17,422,000 acres.

The total irrigated area sown in 1954-55 was 9,120,000 acres as compared to 6,278,000 acres in 1947-48. The irrigated area in 1949-50 constituted more than 37 per cent. of the total sown area which, compared to other States, was the highest in percentage. The average for the country as a whole was 16.7 per cent.

The extent of irrigation varies from district to district according to the location of the water sources and the depth of the water-table. In 1953-54 as much as 88 per cent. of the crop area received irrigation in Amritsar, 67.4 per cent. in Ferozepur, 64.3 per cent. in Jullundur, and 61.7 per cent. in Ludhiana, while in the districts of Ambala, Hoshiarpur, Gurgaon, and Hissar only 8.7 per cent., 13 per cent., 18.1 per cent., and 21.5 per cent. area, respectively, was under irrigation.

Before 1947, the Punjab had one of the best developed canal systems in the world. After the Partition only about one-third of the area served by these canals came to India's share. There are now four main canals in the State: (i) The Upper Bari Doab canal, which takes off from the Ravi at Madhopur, (ii) the Sirhind canal which starts from the Sutlej at Rupar, (iii) the Western Jamuna canal which takes off from the Jamuna at Tajewala, and (iv) the group of inundation canals called the Grey canals in Ferozepur district. With the completion of the Bhakra canal system the Grey canals would cease functioning.

The principal food crops of the Punjab are wheat, gram, *bajra*, maize, rice, jowar and barley which, among themselves, cover an area of 16.8 million acres. Of the cash crops, the most important are cotton, *rabi* oilseeds, and sugarcane.

The State is the second largest wheat and gram producing area in the Indian Union, third largest in respect of barley and maize, and fourth in *bajra* and sugarcane. The State has been able to wipe off food shortages of the immediate post-Partition period, and has even achieved a surplus position in respect of major crops. The total production of cereals has risen from 3,346,000 tons in 1952-53 to 3,519,000 tons in 1956-57, of gram from 1,005,000 tons to 1,954,000 tons, and of cotton from 436,000 bales to 800,000 bales.

Wheat. It is grown in all parts of the State excepting unirrigated areas in the highlands. The more important producing districts are Ferozepur, Ludhiana, Amritsar, Jullundur, Karnal, Rohtak, Hissar, Bhatinda, Sangrur and Patiala. Three species are generally grown: (i) *Triticum durum*, which has bearded ears and tall straw; (ii) *Triticum sphaerococcum* which is beardless and has small round grains and short stiff straw; and (iii) *Triticum aestivum*, which yields medium sized grains. Preliminary ploughings in the fields commence soon after the monsoons. In *barani* areas 8–20 ploughings are given, while on irrigated lands 5–6 ploughings suffice. The crop does best when it comes after a fallow. On irrigated lands cotton and sugarcane are generally followed by wheat. Early summer fodder also precedes it. On *barani* lands, wheat and gram are often sown mixed. This provides some insurance against total crop failure from drought. The usual seed-rate is 24 sr. per acre. Late sown wheat, and that raised on unirrigated lands requires a higher seed-rate. The yield from irrigated lands varies from 11 to 15 md. per acre, and that from unirrigated lands from 5 to 8 md. The overall average yield for the State is about 10 md. per acre.

Gram. It is a *rabi* crop, grown chiefly on *barani* lands. It does best on light sandy soils, and is, therefore, most abundant in Ferozepur, Hissar, Karnal, Rohtak, Sangrur and Bhatinda districts. Sowing lasts from September to the end of October, and harvesting takes place mostly in the later half of March. The seed-rate is generally 12 to 16 sr. per acre. About a quarter of the crop is grown in mixture with wheat or barley.

Barley. It is a *rabi* cereal, sown from October to early January and harvested in early April. The seed-rate is 28 to 30 sr. per acre. It is grown all over the State, but Gurgaon, Ferozepur and Hissar districts are the principal producing areas. More than two-thirds of the barley area is *barani*.

Rice. It is grown in all parts of the State except for the districts of Gurgaon and Simla, the more important areas being Kangra, Karnal, Gurdaspur, Amritsar and Ferozepur. It is a *kharif* crop, and its sowing and planting extend over three months. The seed is sown in nurseries in May–June and the seedlings are ready for transplanting from June to middle of August. Harvesting begins in the 3rd week of September and continues up to the end of November. In Kangra district, where rainfall is heavy, it is sown broadcast. The most common varieties are: (i) Fine rice—*basmati*, *mushkan*, *hansraj* and *bara*; (ii) medium quality rice—*parmal* and *sone*; and (iii) coarse rice—*begami*, *sathra* and *jhona*.

Maize. It is sown almost all over the State, but the more important producing districts are Kangra, Hoshiarpur, Jullundur, Ambala, Amritsar, Ludhiana, Sangrur and Patiala. There are two main varieties of maize, yellow and white; the former is grown to a much larger extent than the latter. The garden variety, called sweet corn, is grown to a limited extent around Simla. When raised for grain, it is sown in July–August and harvested in October. When grown as green fodder, it is sown in March and April,

and is ready for cutting in about two months' time. The usual seed-rate is 8 sr. per acre for the grain crop, and 16 sr. for fodder. The yield of grain ranges from 8 to 20 md. according as the crop is grown in *barani* lands or in properly irrigated and manured fields.

Bajra (*Pennisetum typhoides*, Stapf and Hubbard). It is one of the important food crops in the southern parts of the State. More than 90 per cent. of it is grown *barani*. Sowings are done from early June to the beginning of August depending upon the onset of the monsoon. Two main types are raised, the small-seeded variety or *bajri*, and the bold-seeded type or *bajra*. The former is considered superior, but the latter gives a higher yield and is, therefore, favoured by the cultivators. Harvesting lasts from about the middle of September to early November. The seed-rate is 2 to 3 sr. per acre, and the yield 5 to 6 md.

Jowar (*Sorghum* sp.). It is generally raised for fodder, and is sown mostly on irrigated lands in early April. For grain, the crop is sown mostly in unirrigated tracts with the break of monsoon, any time from the middle of June to the middle of August. It takes about $2\frac{1}{2}$ to 3 months for ripening, though in the south-eastern tract the harvest is ready earlier. For grain, the seed-rate is generally 8 sr. per acre, and for fodder 24 sr. The yield of grain varies from 5 to 8 md. per acre. Its consumption as human food is confined to the southern districts, and that, too, in the winter months.

A variety of inferior millets is also found in different parts of the State. *Ragi* (*Eleusine coracana*), is grown principally in Kangra district, *kangni* in Kangra, Karnal and Gurdaspur districts, and *china* in the mid-Himalayan and inner Himalayan tracts. These millets are usually raised on poorer soils, and a major portion of them is fed to livestock as green fodder.

Pulses. Of pulses (other than gram), the most important are *mung*, (*Phaseolus aureus*), *mash* (*Phaseolus mungo*), *massur* (*Ervum lens*), *moth* (*Phaseolus aconitifolius*), *peas* (*Pisum* spp.), *arhar* (*Cajanus cajan*), and *kulthi* (*Dolichos biflorus*). *Mung* is commonly sown as a subordinate crop with maize, *jowar*, and *bajra*. It does best in medium loamy soils and is fairly drought resistant. The principal *mung* producing district is Hissar, where it is sown *barani*. *Mash* is also a subordinate crop and is generally raised with maize on stiff loamy soils. *Mash* grown in humid regions and at high altitudes is of better cooking quality than that grown in the plains. The important producing areas are Kangra, Gurdaspur, Ferozepur, and Ambala. *Massur*, is grown mostly on lands subject to seasonal floods. It is generally sown alone, but is sometimes mixed with barley.

The principal producing areas are Karnal, Ambala, Amritsar, and Gurdaspur. *Moth* is an important *kharif* pulse, grown in dry areas chiefly in Ferozepur, and Hissar districts. Peas and *arhar* are *rabi* crops. *Kulthi* is grown mainly in the hills.

Sugarcane. It is cultivated extensively in all parts of the State, but the main producing districts are Rohtak, Jullundur, Karnal, Ambala, Sangrur, and Gurdaspur. Planting of cane is done in February–March after some ten ploughings. The crop requires good manuring and irrigation. Harvesting starts from the middle of November and continues till February or even later. The yield of fresh cane varies from 300 to 500 md. per acre.

Oilseeds. Among the oilseeds grown in the Punjab the most important are sesamum, groundnut, *toria* (*Brassica napus* Var. *dichotoma*), mustard, *taramira* (*Eruca sativa*), linseed and castor. Sesamum flourishes best in Amritsar and Gurdaspur districts, and is sown either as a pure crop or mixed with other crops, particularly cotton, *jowar*, *bajra*, *mash*, and *moth*. It is sown in June–July and harvested in October–November. The yield, when grown alone, is about 5 md. per acre from 1 to 2 sr. of seed. The cultivation of groundnut is concentrated in Ludhiana, though it is now spreading to adjoining areas also. Sowing is done in July after the first showers of monsoon, and harvesting takes place towards the middle of November. A normal crop yields 15 to 20 md. of pods per acre against a seed-rate of 15 to 20 sr. *Toria* is grown mostly in Amritsar, Gurdaspur, and Karnal districts. It is generally grown alone on canal irrigated lands. Sowing is done in September, and harvesting begins in January. The usual seed-rate is 2 to 2½ sr. per acre, and the yield about 8 md. of seed. Mustard is usually sown mixed with other *rabi* crops, such as gram, barley, and wheat. It is grown mostly on unirrigated lands. The most important producing areas are Gurgaon, Karnal, Rohtak, Hissar, Ferozepur, Bhatinda, Patiala, and Mohindergarh. Sowing takes place in October–November, and harvesting in March. The average yield is 7–8 md. per acre. The green shoots of the crop are extensively used as vegetable. *Taramira* is best suited to extremely dry regions, and is grown almost entirely *barani*. It is sown either pure or mixed with other crops. When sown pure the seed-rate is about 2 sr., and the yield between 4–5 md. per acre. The main producing areas are Hissar, Ferozepur, Ambala, Sangrur and Mohindergarh. The cultivation of linseed is restricted to the sub-montane areas of Kangra and Gurdaspur districts. In other districts it is sometimes grown around the wheat fields. It is sown in October–November, and harvested in March–April. The yield is about 3 md. of seed per acre. Castor is grown almost exclusively in Gurgaon district. Sowing takes place in July–August, and harvesting in March–April. When sown alone as a perennial crop the yield ranges from 10 to 15 md. of seed per acre.

Cotton. The crop is grown in all types of soils excepting the very lightest ones. It is seldom manured directly, but is raised generally on lands which have received a heavy dressing of manure for some previous crop such as maize, sugarcane, or *toria*. In the south-eastern districts sowing starts in the middle of April and continues up to the end of May. The *barani* crop in Amritsar, Gurdaspur and Hoshiarpur districts is sown in June after the first showers. In Ludhiana and Jullundur, where most of the land is

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irrigated from wells, sowings continue from March to June. In canal irrigated areas the crop is sown from the beginning of May to the middle of June. The usual seed-rate is 4-5 sr. for *desi* cotton, and some 8 sr. for the long-staple varieties. The land is always irrigated before sowing, and the crop receives 5 to 6 waterings. Picking of cotton starts from the end of August in the case of *desi* varieties, and from about the middle of November in the case of improved varieties. The pickers are mostly women and children who generally receive a portion of the produce as their wages. The average yield of *kapas* is 7 md. per acre in the case of improved cottons. *Desi* cotton has a lower yield but matures earlier. For American cotton Ferozepur leads other districts by a big margin, but in the case of *desi* cotton Amritsar is a close rival of Ferozepur.

Tea. The cultivation of tea is confined only to Kangra district. The first plantations were established there in 1849. The area under the crop witnessed a gradual increase from 1,250 acres in 1854 to 9,537 acres in 1892. Since then it has remained stationary, the figure for 1953-54 being 8,900 acres. The size of plantations is very small. Except for a few regular plantations, a major portion of the tea area is owned in plots of less than 3 acres each, and this results in poor yields besides creating marketing difficulties.

CHAPTER VI

AGRICULTURAL PRACTICES

THE Punjab has two main harvests, the *rabi* (*hari*) or spring harvest, and the *kharif* (*sawani*) or autumn harvest. The *rabi* crops are sown in October-November and harvested from mid-March to mid-May; the *kharif* sowings take place from June to August and harvesting lasts from early September to late December. Sugarcane and cotton are counted among autumn crops though sown earlier. Distribution of the major staples between the crop seasons is as follows:

<i>Crop</i>	Rabi Crops		<i>Crop</i>	Kharif Crops	
	<i>Sowing season</i>	<i>Harvesting season</i>		<i>Sowing season</i>	<i>Harvesting season</i>
Wheat	Oct.-Dec.	April	Rice	Nursery in June, transplantation in July-August	Oct.-Nov.
Barley	-do.-	March-April			
Gram	September	-do.-			
Mustard	October	-do.-	Maize	June-August	-do.-
			Bajra	July	-do.-
			Jowar	-do.-	-do.-
			Groundnut	-do.-	November
			Sesamum	June-July	Oct.-Nov.
			Mung	-do.-	Sept.-Nov.
			Mash	-do.-	-do.-
			Sugarcane	March-April	Dec.-April
			Cotton	April-May	Oct.-Dec.

The cultivation of some crops falls in between the *kharif* and *rabi* seasons, and these are classed as *zaid* (extra) *kharif* and *zaid* (extra) *rabi*. Thus *toria* which matures late in December, is a *zaid-kharif* crop, and tobacco and melons which are harvested late in June are among the *zaid-rabi* crops.

The soil and climatic conditions differ materially in different regions of the State. Agronomic practices also vary, therefore, from one part to another. A region-wise description is given below.

Hill Region. In the Outer and Mid Himalayas, the soils vary from highly productive loams and detritus to stiff marls and hard clays of low fertility. In the richer soils a wide variety of crops is grown, while in the poorer ones only gram and inferior pulses are raised. In the Kangra Valley, the chief *kharif* crops are rice, maize, millets, pulses, ginger and turmeric. The major crops of the *rabi* season are wheat, barley, gram, oilseeds (mainly

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mustard and linseed) and peas. Cotton and sugarcane are also grown in some parts. Besides, potato cultivation is fairly widespread. Tea plantations are met with near Palampur and Baijnath. The important *kharif* crops of the Kulu sub-region are maize and rice, and the *rabi* crops wheat and barley.

The cultivated area is divided into fields, generally unenclosed but in some parts surrounded by hedges or stone walls. These usually descend in successive terraces, and where the slope of land is rapid they are often no bigger than a billiard table. However, in the west of the Dehra and Nurpur tehsils, where the country is less broken, the fields are larger in size. In many parts double cropping is common. The sowing time varies with the elevation, the spring crop being sown from September to December, and the autumn crop from April to July. Sowing is generally done by broadcasting the seed. However, in the case of paddy, the Japanese method of cultivation is becoming popular. Inter-culture is done by hand, and this work is generally done by women.

The agricultural implements in use are few and simple. They differ little from those employed in the plains. The more common of these are listed below :

Vernacular Name	English Description
<i>Hal and Lohala</i>	Plough and ploughshare.
<i>Mahi</i>	A heavy horizontal block of wood dragged by oxen, for smoothing the surface of a field.
<i>Maah</i>	Similar to the above but curved in shape, and used only on muddy lands.
<i>Dandral</i>	A harrow with eight or ten bamboo teeth dragged by oxen, used for opening the soil round the young corn.
<i>Manja, Kodai and Kodali</i>	Hoes for weeding.
<i>Bhukran or Kathela or Bhanota</i>	A wooden club used for crushing stiff clods of earth.
<i>Traingul</i>	A three-pronged pitchfork.
<i>Daranti</i>	A small hook.
<i>Khabar daranti</i>	A hook with teeth like a saw to cut long grass.
<i>Kahi or Kassi</i>	A mattock.
<i>Rambha</i>	A small iron instrument for digging up grass roots and all weeds.
<i>Kulharu or Chihon</i>	Axes for cutting wood.

Irrigation is done by means of *kuls* or miniature cuts drawn from the streams that feed the larger torrents, as many as 15 or 20 independent channels being sometimes supplied from a single stream. The sources of water supply for the higher fields lie deep in the hills, the water being taken across steep declivities by tortuous channels, constructed and maintained with considerable labour. Irrigation from wells is uncommon.

The Inner Himalayan tract of Lahaul and Spiti remains under snow from December to the end of April, and sowings begin as soon as the land is

clear. In Spiti the staple food is barley. A good crop yields about 25 maunds per acre. As the altitude decreases, the area under barley falls and wheat cultivation becomes conspicuous. Mustard and peas are also raised extensively. The principal crops of Lahaul are barley, buck-wheat, wheat, *kuth* and potato. There are three types of barley, viz., *serno*, *dzad*, and *thangdzad*. The first type is a naked type, and is considered superior to all. The other two are husked types. The *thangdzad* barley is grown on large scale in the Patan Valley, where it ripens in the month of July. After its removal buck-wheat is sown immediately in the same fields.

Sub-montane Region. The lands in the sub-montane tract may be broadly divided into plains and hilly elevations. In the former the fields in the immediate proximity of the village site generally bear two crops annually; those situated at a distance are single-cropped. Where double cropping is practised, maize and wheat are the principal crops. For single-cropped areas leguminous pulses and gram are favoured. In the hilly lands maize and wheat are cultivated extensively. The other major crops of the tract are bajra, rice, mustard, lentils, and potatoes.

Irrigation is generally done from *kuls* and wells. Since the holdings are usually small it is common for the farmers to club together for irrigation purposes. The lands in the vicinity of *chos* are invariably watered by cutting channels or *kuls*. These channels are often carried along tunnels dug on the cliffs over-hanging the *chos*. The construction and silt-clearance of these channels is a difficult and laborious operation.

The *kharif* ploughings start about the beginning of July, and go on to the middle of August. In some cases maize is sown as early as April. For the *rabi*, ploughing and sowing goes on all through the middle of September to the middle of November, but late wheat is sown up to the beginning of December. Maize is cut and threshed in October, while the threshing of rice, pulses and *bajra* is carried on in November. The *rabi* harvesting lasts all through the middle of April to the end of May.

Among the better class of cultivators Jats and Sainis, tillage is carried out in a fairly satisfactory manner, considering the means available. It is generally more thorough for the *rabi* than for the *kharif*, as more time is available in the case of the former. For wheat a number of ploughings are given as a fine seed-bed is essential. Gram is a hardier crop, and with its long tap roots does not require so much care. In the hills, tillage is less thorough than in the plains. The first ploughing is called *dhal* (clod-breaking) and the second *baj*. Generally not more than three ploughings are given in the stony soils.

Deep ploughing is not considered good when the rainfall has been abundant, nor again is the seeding-plough driven deep. When the soil has been reduced by the plough to a fairly fine tilth, the *sohaga* is used in place of a light roller. It breaks up any remaining clods and also compacts and levels the surface.

Sowing is carried out in one of three ways according to circumstances: (i) With the *por* or *nali* i.e. the seed tube which is secured to the plough handle with its lower end close to the heel; (ii) by *kera*, or dropping the seed by hand into the plough furrow; and (iii) by *chatta*, i.e., by merely scattering the seed on the surface. The first method, if properly carried out, deposits the seed at the lowest part of the furrow. It is employed when the moisture in the surface soil is scanty, the object no doubt being to place the seed in a position where it may utilize the sub-soil moisture as much as possible. Under the second method the seed does not lie so deep, and it is resorted to where there is a moderate supply of moisture in the soil. When the latter is very moist the seed is scattered on the surface. To sow at any depth under such circumstances would be to expose the young seedlings, while germinating, to the danger of being crushed when the moist soil begins to dry into hard clods. It occasionally happens that after the *rabi* crops have been sown with the tube or by the *kera* method, a late fall of rain coagulates the top-most surface layer of the soil before the seedlings have appeared above ground. The crust formed is called *kappar* or *karandi*, and has to be removed in the lighter loam soils by raking with the *dandal*, while the harder loam and clay soils have to be reploughed and resown. Sandy soils owing to the comparative deficiency of argillaceous particles capable of coagulation are not so liable to *karandi*. This is one of the reasons why the lighter soils are sown for *rabi* earlier than the heavier ones.

Weeding and hoeing after the crop has appeared above ground do not occupy a very prominent place in agricultural operations, except in the case of the maize crop. The better class of cultivators understand, however, the advantage of having a shallow surface layer of soft open soil which acts as a mulch and helps to prevent evaporation of moisture while the crop is still young.

Plains. In the plains, generally three systems of cropping are in vogue, namely double cropping, *rabi* followed by *kharif* and then by a full year's fallow, and *rabi* every year. But owing to the fitful character of rainfall over the greater part of the region the second of these systems is frequently interrupted.

Double cropping is confined practically to manured canal and well lands. It usually consists of maize in *kharif* followed by wheat, gram or fodder in *rabi*. If the *kharif* crop be cotton, it is usual to sow *senji* or *methra* fodder for the *rabi*. In the riverain tracts sugarcane is grown; this is equivalent to double cropping. On some of the best wells in the neighbourhood of towns as many as three crops of vegetables and fodder are raised annually.

The double cropping system affords a rotation of crops and the necessary fallows. It is practised to some extent on lands irrigated by the canals and also on the firmer *barani* lands where the rainfall is usually fairly certain. A *rabi* crop, generally wheat or wheat and gram, is sown and when it has been reaped the land is roughly ploughed and a *kharif* crop, usually a mixture

of jowar and pulses is sown in the stubble. The land is then allowed to lie fallow for the next two harvests when the process is repeated. This rotation is, however, frequently upset by a failure of the rains.

The single cropping system is practically the only one practised on *barani* lands especially in the light soils. These lands, if the soil is good, grow a wheat and gram mixture in *rabi*, year after year. If the soil is pure sand, the crop grown is usually gram. Occasionally on the better soils a *kharif* crop follows the *rabi* and the land is then given a fallow, but as a rule, the only rest such lands receive is that enforced by seasons of drought. Some of the irrigated land is also cultivated on this system, but there is usually a tendency for the cultivators after a poor *rabi* to sow a larger area of *kharif* crops to counteract the shortage of fodder.

Ploughing is generally done with bullocks, but in some parts, where the land is sandy, camels are employed. In the riverain tracts male buffaloes are also used occasionally. After ploughing, the clods are broken and the surface smoothed by drawing over it a flat beam called *sohaga*. This is pulled by oxen, and is weighted by the drivers standing on it. A popular proverb says that one application of *sohaga* is equal to a hundred ploughings, for the land retains moisture much better after the operation. Stiff soil cannot be ploughed until it is in a moderately moist condition called *wattar*. Sowing is done either by hand, broadcast, or by drill. More seed is sown when the land is dry than when it is moist, and more when the sowing is late than when it is done in the best season.

Just before sowing eradication of weeds is affected by a simple and economical method called *dabkarama*. After *rauni*, an irrigation which is applied for preparing the seed-bed, the land is ploughed up and planked. It is then allowed to remain undisturbed till the weed seeds germinate. Ploughing is repeated which throws out the weeds.

The manure most commonly used is farmyard refuse mixed with ashes which is stacked in large heaps and allowed to mature. Some fields, particularly those intended for sugarcane, are treated with a kind of black *kallar* brought from some of the old deserted sites. The lands in the neighbourhood of towns usually receive municipal refuse. Generally, only irrigated lands are manured, though in some villages where there are no irrigation facilities, occasionally patches of harder soil, which receive some drainage from the higher lands are also fertilised. In recent years, use of chemical fertilisers has also become popular. Maize, cane and cotton are manured as a rule, and sometimes wheat too, but as this crop often follows other manured crops, it is benefited indirectly without additional fertilisation. Wheat and rice on the best fields are, however, top-dressed with *kallar* from waste lands,

CHAPTER VII

HORTICULTURE

THE area under fruits and vegetables in the Punjab is comparatively small—hardly one per cent. of the total cultivated area. Notwithstanding this, the wide range of soils and climate enables a large variety of horticultural crops to be grown.

In regard to horticulture the Punjab may be divided broadly into five regions: (i) Area of high hills from an elevation of 4,000 ft. to 8,000 ft., (ii) areas of low hills from an altitude of 2,000 ft. to 4,000 ft., (iii) sub-montane region, (iv) central plains, and (v) southern arid zone. The fruits grown in these regions are briefly dealt with below.

High Hills. This region includes the Kulu sub-division, Outer Seraj, and Lahaul and Spiti Valleys of Kangra district, Simla district, and the Kandaghat sub-division of Patiala district. In the high altitude tract of Spiti and Lahaul fruit culture cannot be a profitable venture. At present only wild apricot is met with in Spiti, and apple in Lahaul. However, in the mid-Himalayan region of Kulu and Simla, a large number of fruits of temperate climate, such as apples, cherries, persimmons, walnuts, pears, and apricots are grown. Of these the apple is by far the most important, and covers almost 75 per cent. of the total area under fruits. Kulu apples are famous for their quality, and sell even in distant markets in the country.

Low Hills. This region includes the lower hills of Kangra district, as well as those of the Kandaghat sub-division, and is highly suited to the cultivation of stone fruits, especially peaches, plums, apricots and almonds. In addition, mango and citrus fruits are also met with. The pecan-nut, which was introduced some years back from America, is also thriving well.

Sub-montane Region. The sub-montane tract of Ambala, Hoshiarpur, Gurdaspur, and Patiala districts has a moderate climate with an annual rainfall ranging from 30" to 40". Mango and citrus fruits, particularly *sangtra* (orange), are found in abundance. The soil in Gurdaspur district is more fertile than that of the other parts of the tract, and even red-blood oranges and litchis thrive very well. The garden colonies of Adhoi Tolanwali and Khanpur in Ambala, and of Dalamwal in Hoshiarpur are suitable for the cultivation of grafted mangoes like the *dusehri*, *langra*, and *sufaida*. The garden colonies of Dialgarh and Khojpur in Gurdaspur grow grafted mangoes, litchis, *sangtra*, peaches, plums and pears. In addition, guava, loquat, pomegranate and sweet lime are also grown extensively.

Central Plains. This region includes the districts of Amritsar, Jullundur, Kapurthala, Ludhiana, and Bhatinda. It is a very fertile area and grows a wide variety of fruits. Many commercial orchards are located in it.

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The principal fruits are citrus, mango, guava, pomegranate, loquat, pear, peach, and plum. The citrus fruits are particularly abundant. The *malta* orange of this region has become famous.

Southern Arid Zone. The region comprises most of the Ambala Division. It has a hot and arid climate, though in the canal irrigated parts conditions are somewhat mild. Where proper irrigation facilities exist, good orchards are met with. Guava, *ber*, mango, and citrus are the principal fruits. There is also good scope for date-palm cultivation. It is expected that, on the completion of the Bhakra canal system, the area under fruits in the region will expand considerably.

CHAPTER VIII

VILLAGE ORGANISATION

As in many parts of India the physical unity of a Punjab village becomes apparent as soon as one enters it. Houses cluster closely together, and the small lanes running into each other give the habitation the appearance of a honeycomb. The approach road ends in a girdling pathway or *phirmi* into which the main thoroughfares open at intervals creating compactness and a sort of mobile cohesion. Some villages are walled, but even otherwise the housing area ends abruptly at the skirting *phirmi* beyond which lie the cultivated fields. Somewhere in a corner is the age-worn village tank, in which buffaloes lounge lazily, and washing goes on at all hours of the day.

On close inspection, the village houses will generally be found to be divided in some sort of order according to *pattis* or *tarafs* or other internal subdivisions. These sub-divisions are, as a rule, well understood even if not well marked, and have recognized membership. Generally, the members of each *patti* have descended from a common ancestor, and constitute exogamous patrilineal groups called *gotras*. They make for a sense of blood-ties and oneness, and even in villages of three or four thousand population, marriages are not arranged within the village itself. This has led to inter-village alliances, and a welding of the entire rural fabric.

The hierarchy of the caste-system, which is so strong in other parts of India, is only mildly conspicuous in the Punjab villages. It is tending more and more to model itself on functional specialization, which is the basis of the vertical unity of the village economy as distinct from the horizontal unity through caste alliances inter-linking different villages. Thus, though from the view point of social organisation and marital ties the structural unit in the countryside is larger than the village and in economic matters most of the villages are fairly self-sufficient entities.

Effects of Partition. The village organisation has undergone a rapid transformation since the Partition. With the rehabilitation of the displaced persons the old familiar pattern has altered in many respects, and can at best be recognized only in its fading outlines. Thus the exogamous character of the villages, the inter-community relationships, the old traditions of social behaviour, and the economic inter-dependency of villages have all changed.

The Partition has been a great leveller. After losing their wealth in West Punjab, the erstwhile rich had to make a new start in the struggle for existence into which they were plunged. Only the hard-working and intelligent among them could find their feet, while the indolent and the parasitic suffered a good deal. Apart from the colonists and the refugee farmers

from Lahore, Sheikhupura, and Gujranwala, large numbers of Hindus and Sikhs from Rawalpindi and Multan Divisions were shopkeepers-cum-moneylenders who despised manual work. Deprived of an easy way of making money, they had to realize the dignity of manual labour and to cultivate the habit of working with their own hands. Their resettlement in the stagnant towns of East Punjab quickened the pulse of social life. Drab bazars with ill-kept shops have been reorientated and we find instead well-stocked orderly shops with a large variety of goods. The townsmen in the districts of East Punjab were socially backward, and their women purdah-ridden. The vivacious refugee women, particularly from the Rawalpindi Division, have given a new outlook to their backward sisters. Refugee shopkeepers have penetrated isolated villages, and even in the desert tracts of Bhiwani in Hissar district bananas and oranges can now be purchased. The consumption of fruits is consequently on the increase. Similarly the demand for poultry, eggs, and meat is rising rapidly even among the predominantly vegetarian population of Ambala Division.

The Partition has provided great opportunities for the planning and rebuilding of life on a new pattern. Vast experiments in rural housing, and co-operative farming and gardening have been tried over one-fourth of the total cultivated area in the State. Similarly the work of consolidating fragmented holdings, which was progressing very tardily, has found a big scope and a natural stimulus for expansion. The village communications are improving fast, and new ideas and modern techniques of farming are flowing into the countryside. Large areas have also been acquired for building new townships and industrial colonies. All this would not have been possible without the upheaval caused by the Partition.

On account of the emigration of the Muslims some aspects of social and economic life have suddenly shrunk. The departure of the *Mirasis* and *Nagals* who were the village bards and made social life gay and colourful, has been a net loss. So has been the migration of Muslim artisans and of the *Ara*ins who had specialised in vegetable gardening.

On account of their different food habits, the Muslims on the one side, and the Hindus and the Sikhs on the other, were commensals. The food which was taboo to one community was avidly taken by the other. While pig rearing has vanished from the territories that are now in Pakistan, cow killing has become an impossibility in East Punjab. The number of useless cattle has, therefore, increased enormously. Old and infirm cows and bullocks, dry cows, and male calves of buffaloes roam about in large numbers trespassing into fields and damaging crops. What is worse they compete ruinously with the human population for the limited food which the land can raise. With the spread of tractor cultivation, which is bound to take place when cheaper sources of power are made available, the number of surplus bullocks is likely to increase further. Formerly the unwanted bovines furnished beef to the Muslims and hides to the leather trade which was

at one time a source of great income to the province. But now that the Muslims have gone, even flaying of the dead cattle is looked down upon with contempt, and the Harijans who used to do this are abjuring their ancestral profession to acquire better social status. The net result is that the leather industry has suffered a great loss and the farmer has to bear an unnecessary burden.

Rural Development Work. Another factor which is making for change is the rural development work in progress under the Community Projects and National Extension Scheme. It is changing the old economic order and the whole complex of living and working conditions associated with it. New methods of farming are making it possible to raise agricultural production materially and to reduce the strain on human muscles. The growing prosperity of the villages and the larger measure of leisure which the people are coming to have are expressing themselves in an urge for more education, better houses, cleaner surroundings and other modern amenities. Where electricity is becoming available, pumping sets and tubewells are being set up and even cold storage plants are being established. Lands which were at one time unproductive for want of irrigation are turning into rich fields. This is enabling the cultivators to use more fertilizers and better implements, and also to improve the intensity of cropping. We may illustrate this with the example of Reroo village in Jullundur district which like many other villages in the State has received electricity in recent years.

Before 1950 the entire cultivated area of the village was irrigated by bullock-drawn Persian wheels. Now there are 27 electric pumping sets, irrigating 336 acres out of the total cultivated area of 408 acres. The water output of a pumping set is more than double of that drawn by the usual Persian wheel. This increased water supply has resulted in an overall increase of about 10 per cent. in crop yields. Again, since the pumping sets can be worked for a long number of hours, there has been an indirect impetus to grow more crops. This has led to a change in crop rotations and increased intensity of cropping, which has risen from 150 per cent. to about 300 per cent. The new rotations practised do not allow the land to remain fallow. Use of fertilizers and manures has, therefore, become extensive. All this has resulted in a substantial increment in the income of the cultivators. Their standard of life has consequently improved considerably. Nearly 95 per cent. of the houses have electric connections now. There are also six radio sets in the village. Electric fans and heaters are also coming into use. Village sanitation too has improved as a result of this prosperity. *Pacca* drains have been constructed and the streets have been paved. A sweeper has also been engaged to keep the village clean. The village boys who previously had to start helping their parents from the age of 9 or 10 years, mostly in working the Persian wheels, are now free to go to school or to play about.

As one moves from one part of the State to another, one finds considerable diversity in the village organization as well as in the appearance and racial characters of the people. It is not possible to telescope all this variety within a single chapter, but a broad outline of the country life can be made clear by presenting a small cross-section of the major communities found in different regions of the State. For this purpose, a brief account is given in the chapters that follow of the communities and villages in the Hill Region, comprising the Tibetan zone of Lahaul and Spiti, the mid-Himalayan zone in which Kulu is situated and outer-Himalayan areas of the Kangra Valley; the Central Plains, or the Punjabi speaking area, consisting of the Majha, the Doaba, and the Malwa sub-regions represented by the districts of Amritsar, Gurdaspur, Jullundur, Hoshiarpur, Ferozepur, Ludhiana, Bhatinda and Patiala and the Haryana tract in the south which is represented by the districts of Rohtak, Hissar, Karnal, Gurgaon and Mohindergarh.

CHAPTER IX

FARMERS OF LAHAUL AND SPITI

THE Lahaulis are a mixed race, and in their features we see a combination of Mongolian and Aryan traits. The figures both of men and women are short and stout: their slightly high cheek bones, oblique almond-like eyes, and broad mouths are indications of a Mongolian origin, while their straight noses point to an admixture of the Aryan blood. Their complexions are ruddy brown and the faces of the old men and women are heavily wrinkled. They are a cheerful race and bear a look of honesty and good humour, which is rather remarkable considering the hard conditions under which they live.

The men are shrewd and sensible, and on account of their extensive travels in Tibet, Ladakh, Kulu Valley and even distant places in the plains of India, they have developed considerable business acumen. They are a sturdy people, able to face all dangers and are fond of adventure. When they meet their superiors they are completely at ease. This is probably due to the comparative freedom from invasions which they have enjoyed in their remote valley. A British Assistant Commissioner who visited Lahaul in 1884 writes: "They have few ideas in respect of manners; when holding a court or a meeting, I have often seen the whole assembly burst into a roar of laughter on my making a mistake in the language of a ludicrous character, and a man would fill and light his pipe under my nose on similar occasions without thinking of asking leave. But these same people answered all my questions very carefully, and carried out my orders with great fidelity." They are peace-loving, and violent crime is almost unknown among them. Possibly this is due to the influence of Buddhism.

From the month of November to March the villages in Lahaul remain buried under snow and all outdoor activity ceases. At times it becomes even difficult for the people to leave their cottages. They, therefore, keep large stocks of fuel, consisting mostly of stems and leaves of juniper bushes, *bhoj-patra* birches, pencil cedar and dung cakes. Nearly half the day they spend feeding the cattle and watering them.

The winter months are a sort of imprisonment for the Lahaulis, and they do their best to make them pleasant. In early December the leading families of Thakurs who reside in Gondhla, Gumring and Kangsar start a round of feasts. The Thakur invites all the inhabitants of the village to his house. At about 4 o'clock in the afternoon they are given salted and buttered soup-like Tibetan tea. A large number of cups are consumed. This is followed by a round of *chang*, a home-brewed barley beer. At about 8 p.m. dinner consisting of curried goat's flesh and fermented buck-wheat bread is served. Old meat is particularly favoured, and goat's flesh over two years old is

regarded a delicacy. The dinner is followed by another round of *chang*. The party by this time becomes quite hilarious, and both men and women sing Tibetan songs in which the exploits of their ancestors are related. At about 10 p.m. the women and children leave, and an hour later the men. Later on each one of the invitees invites the rest, and thus the round of feasts once started lasts for about a month.

The tedium of long winter nights is also broken by work. Wool spinning is fashionable with both men and women. As they spin the wool thread on *takli* they also have long chats. Looms are found in most homes, and both the men and women take turns at them. The woollen cloth which they prepare is mostly used for their domestic consumption, and there is very little for sale or export.

The women, like the men reveal their mixed origin in their features. Some of them have shapely noses and clear cut features, but their eyes are always oblique. Making allowance for their slightly Mongolian features, some of them, particularly the younger ones, can be called good looking. With their oval faces, almond-like eyes, and ruddy complexion, they are a picture of good health. They are fond of washing, and groups of them are met with at the village fountains displaying their towels, combs and hand mirrors. The use of soap is also not unknown to them.

Dolman and Angmon are popular names among the Lahauli women, and these names are used either alone or suffixed to other words. Some of the other common names are: Sonam Dolman, Tashi Palmon, Tashi Yanki, Chhering Yanki, Sonam Angmon, Chheme Angmon, Deki and Hishe Banti.

The women wear tight pajamas, *choga*-like shirts tied at the waist with a *kamarband* and a waist-coat. They show preference for maroon and dark brown colours. The coiffure of the women of Kayelang is most elaborate. The hair are twisted into numerous pigtailed which are held in position by a plate-like silver ornament hanging at the waist. At the back of the head is worn a *borla*-like ornament, and on the temples are two amber-coloured balls. This elaborate coiffure exercises considerable pull, and consequently most of the women have broad foreheads on account of the loss of hair. Straw shoes are worn by men as well as women; the sole is made from barley straw and the upper part from strings of twisted *bhang* (*Cannabis sativa*) fibre which are coloured green and red. The shoes worn by the well-to-do classes are fur-lined.

Lahauli women are very hard working and help the men in all the agricultural operations such as ploughing, hoeing, weeding, and harvesting. Irrigation of fields from *kuls* is done entirely by them. They relieve the monotony of their toil by singing folk-songs. When meeting strangers, they are not at all shy or tongue-tied.

Young men and women freely come in contact with each other; and love affairs develop which ultimately result in marriages. When a boy and



FIG. 2. Dhampur village in Lahaul Valley. Surrounded by high rugged mountains, it remains cut-off from the outside world except during the summer months when communication through the snow-bound passes becomes possible



FIG. 3. A view of Kardong village in Lahaul. Note the flat roofs which contrast markedly with the sloping roofs of Kulu houses



FIG. 4. A young girl of Lahaul in bridal dress

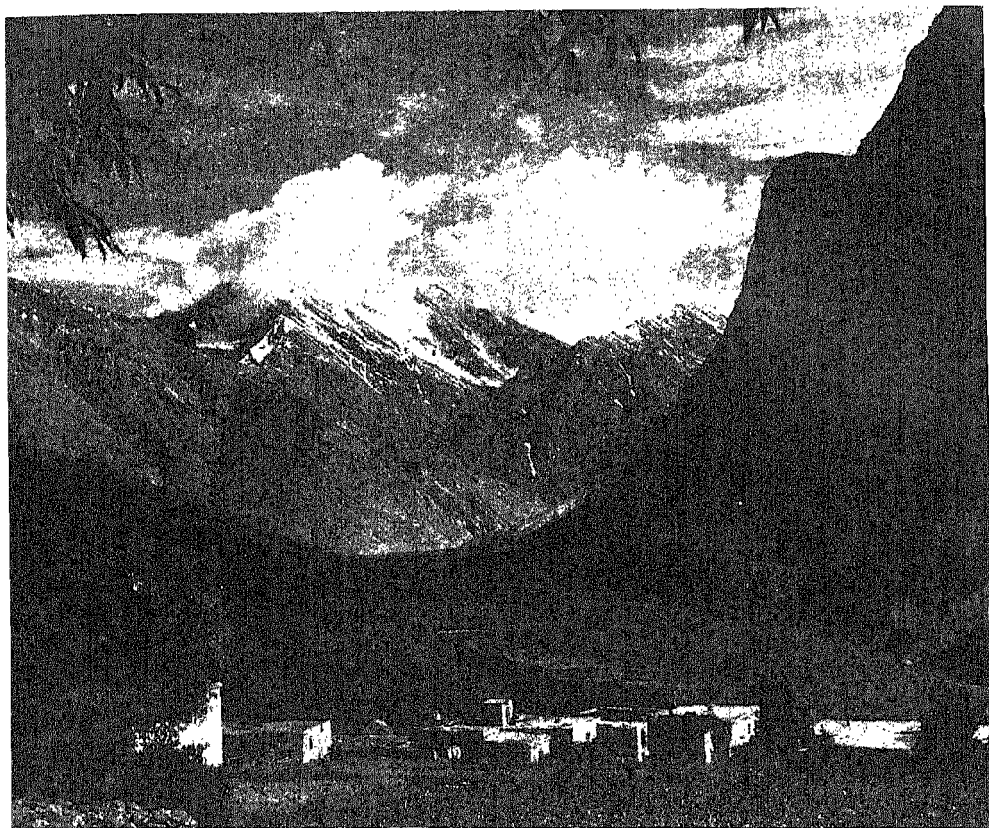


FIG. 5. A small habitation at the foot of high mountains in Lahaul. The houses are usually built against each other to provide inter-communication in winter



FIG. 6. A Lahauli mother with her young daughters



FIG. 7. Traditional jewellery worn by women of distinction in Lahu

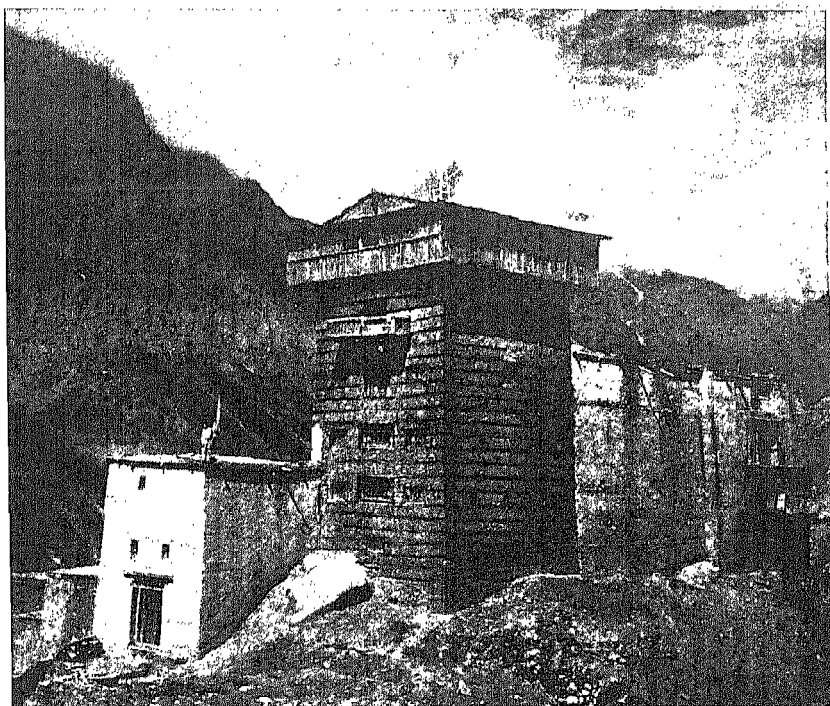


FIG. 8. Thakur's house at Gondhla, Lahaul. It is a massive villa with many storeys, and dominates the plateau in Rangloi Valley



FIG. 9. A marriage feast in a Lahaul village

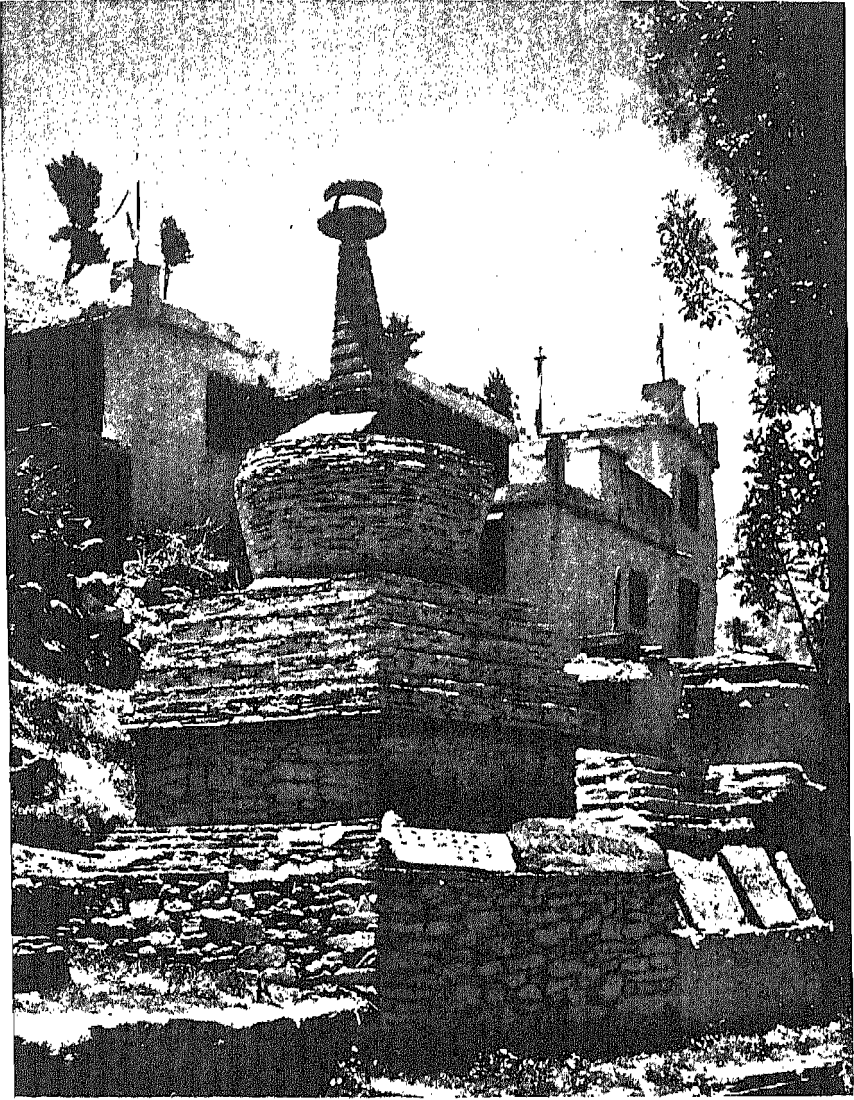


FIG. 10. Buddhist monastery at Kardong



FIG. 11. A Lahauli woman on her way back from the fields



FIG. 12. Lahauli children



FIG. 13. A Spiti village. The houses are flat-topped, with fuel stored on the roofs and clean white-washed walls



FIG. 14. A group of Spitiens



FIG. 15. A Spitian father and child



FIG. 16. A belle of Spiti



FIG. 17. The Zome dance of Spiti

a girl decide to marry, the girl is abducted by the boy. He sends a pot of *chang* to the father of the bride, and if the pot is accepted the betrothal ceremony follows. Usually it is accepted, for a refusal only leads to complications. A religious ceremony also takes place. A *lama* is invited; he reads verses from the holy books while the whole company of men and women sit round with clasped hands and repeat the verses after him. This is followed by a social celebration which consists of feasts in which much *chang* is drunk.

Polyandry or taking of one woman as a wife by several brothers is a recognised institution in Lahaul, it is meant to prevent the division of family holdings. Before the British regime the law of primogeniture prevailed.

In Lahaul we find a curious blend of Buddhist and Hindu cultures. Some of the Lahaulis have Buddhist as well as Hindu names. In their religion also they combine the worship of the Buddha and the Buddhist saints with that of the Hindu deities. Though they understand Hindustani as well as Punjabi, their own language is Tibetan. In the Rangloi Valley of Chandra the people speak the *Tinan* dialect, in the Patan Valley of Chandra and Bhaga the dialect spoken is called *Boonan*. However, all the Lahaulis know Tibetan in which they communicate with each other.

The Moravian missionaries, who made Kayelang their headquarters about 1860 and who abandoned the valley in 1942 on account of differences with the local Thakur, have left their mark on the country and the people. Pioneers among them were Mr. and Mrs. Heyde who lived in Kayelang for 50 years. They were followed by Mr. and Mrs. Schnabel. Schnabel was a well-known Tibetan scholar who translated the Bible into Tibetan. The last among them was Peter who was a versatile person. The Moravian missionaries introduced potatoes, tomatoes and cabbages. Cabbages grow to a large size in Lahaul. The women folk of missionaries taught the Lahauli women how to knit socks and pullovers, thus giving them a useful way of spending their long winter nights. The missionaries also popularised windows with glass panes which are now quite common in the villages in the valley. In some of the villages like Kardong, they also introduced iron stoves provided with a chimney for expelling the smoke. The unprecedented prosperity which the Lahaul farmers enjoyed on account of the introduction of *kuth* (*Saussurea lappa*) which was selling at Rs. 300 per maund about 20 years ago has greatly helped them in improving their housing. Incidentally it also illustrates in a striking manner the role of plant introduction in the economic betterment of rural communities.

VILLAGES

The principle villages in Lahaul are Kayelang, Kolong, and Kardang in the Gara Valley, and Gondhla in Rangloi. The Patan Valley contains 82 out of the 173 hamlets of the whole region.

The villages do not occur at places higher than 11,500 ft. above the sea-level. The houses are flat-topped and usually built against each other to

provide indoor communication in winter. The villages are set among the fields and not on the spurs of the hills as in Kulu.

The houses in Spiti are usually built separate from each other and in some places, as at Rangarig, there is a village square. They are flat-topped with clean, white-washed walls and a dark parapet of stacked fuel on the top. Some of the villages notably Kyibar and Dangar, are very picturesquely situated; so are the monasteries. The Kye monastery is a striking collection of buildings, piled together on an eminence which dominates the plateau. The Thanggyud monastery looks from a distance like a mediaeval castle and stands at the edge of a deep canyon with the main Himalayas towering over it.

Dangar, the capital of Spiti, is a large village, 12,774 ft. above sea-level. It is built on a spur which projects into the main valley and ends in a precipice. The softer parts of this hill have been worn away, leaving blocks and columns of a hard conglomerate among which the houses are perched on curious and inconvenient points. On the top of the hill is a large house known as the fort which, along with some cultivated land attached, belongs to Government. On the point lower down the hill is a large monastery. The aspect of the whole place is very picturesque.



FIG. 19. A detailed map of Lahaul, Spiti and neighbouring areas

CHAPTER X

FARMERS OF KULU

ON account of its remoteness and comparative inaccessibility the Kulu Valley has maintained its charm and the Kulu people their distinctive culture. The ancient Hindus regarded Kulu as the farthest limit of human habitation; and in the traditional folklore it is often referred to as *Kulantapiltha*, the end of habitable world.

The Kulu people are comparatively simple, and the masses are largely uneducated. They are good humoured among themselves, but rough and inhospitable to strangers; very submissive to constituted authority if exercised with any tact; not given to theft, and not much to falsehood. They are not so industrious, so frugal, or so enterprising as the Kangra people are, and are also more superstitious and tradition-bound.

The social system is kept up by the rules of caste, by the numerous visits paid by *deotas* to each other accompanied by their people, and by gatherings on occasions of joy and grief. Discipline is enforced by the *banj* or social and religious ban, and by the loss of formal *uggu*, or withdrawal of social relations. The *banj* is rarely employed without good reason, but sometimes it enables a man to get rid of an inconvenient wife. A great many disputes are settled by panchayats, especially in the upper Parbati valley. They show great respect to age, and it comes as a surprise to the visitor from the plains to see a man stoop to touch an elderly woman's feet in salutation. This greeting is extended to seniors by both sexes. There is also the pretty custom of taking cakes (*pahur*) in the early spring to the married sisters of the family, to keep up old acquaintance; and this is universal in Kulu and Scoraj. The bride too is made to feel more at home in her new surroundings by being attached by the rite of *dharmchara* to a member of a family, whether man or woman, who is on friendly terms with the husband's family. There is no doubt that the people have kindly instincts and that they love pleasant social life. That they have imagination is proved by many of their legends and fairy tales, which contain as much of that quality as any in the world. Their sense of the picturesque is proved by the situations they have chosen for their temples and by the wild stories they attach to each cave, lake, frowning cliff, rugged rock or waterfall to explain the impression which its form produces on their minds. They are very fond of music and their tunes are quick and lively. The women sing a great deal and rhyming songs are made at each marriage or funeral, or in commemoration of any remarkable event.

The Kulu woman rules her husband and she likes to rule alone. It is a very common proceeding at betrothal to bind the future bridegroom by a

written agreement not to take another wife unless his first proves barren or becomes maimed. Armed with such a document, and fully conscious of her value to her husband as a field worker and a domestic drudge, as well as a mother of children, the woman is mistress of the situation, for if her husband proves distasteful to her, there is nothing to prevent her from eloping with a neighbour more to her fancy.

In the Sarvari Valley it is common for a bridegroom elect to serve for his wife when he or his father is unable to pay the consideration fixed at the time of the betrothal. He contracts to work as a farm labourer in his father-in-law's house for a period of three to seven years, at the end of which the marriage ceremony is performed though it has generally been anticipated with full consent of the parents.

Polyandry is common throughout Seoraj, and in parts of Waziri Rupi, and is the rule among the inhabitants of the isolated Malana glen in the Kulu tehsil. These localities are the most congested in point of population in Kulu proper, the grain produced in them is insufficient to afford food to the people, and a certain amount of corn has to be imported annually into them. So, the practice may owe its origin to economic reasons.

The population consists almost entirely of Kanets and Dagis, with a small admixture of Brahmins.

Kanets. The Kanets are the principal cultivating class of the eastern Himalayan zone of the Punjab and the hills at their base. General Cunningham identifies them with the Kunindas or Kulindas of the Sanskrit classics and of Ptolemy, and is of opinion that they belong to a race, known by various names, which, before the Aryan invasion, occupied the whole sub-Himalayan tract from the Indus to the Brahmaputra, and which driven up into the hills by the advancing wave of immigration, now separates the Aryans of India from the Turanians of Tibet.

The Kanets are divided into two great tribes, the Khasia and the Rao or Rahu; and it is probable that both are really descended from intercourse between the Vaisya Aryan immigrants and the women of the hills. The distinction between Khasia and the Rao is still sufficiently well marked. A Khasia observes the period of impurity after the death of a relation prescribed for a twice-born man; the Rao that prescribed for an out-caste. The Khasia wears the *janeu* or sacred thread, while the Rao does not.

The Kanets are exclusively agriculturists and shepherds. When asked about their caste they frequently reply 'Zamindar'. They are industrious and thrifty cultivators.

The Kanets of Malana have more refined features than those of the rest of Kulu, which may be due to a separate origin, or to continual inbreeding. Their language points to a mixed aboriginal and Tibetan source. In appearance the Kanets vary greatly. Some are hardly darker than Spaniards in complexion with a ruddy colour showing in their cheeks; others are as dark as the ordinary Punjabi. They are not tall, but look strong and active, and

generally have handsome figures. Many of the women have fine eyes, and a mild and gentle expression of face, but the men on the whole have the advantage in regularity of features. The finest men are to be found in Seoraj. The women do most of the field work, with the exception of ploughing, but in return they have more liberty than women in most parts of India. They attend all the fairs and festivals (*jach*) held periodically at every temple in the country. At these fairs both sexes join in the singing and dancing, but the women in Kulu dance separately, and at night only. In Basahir the Kanets of both sexes dance together. In the Lag and Parol Waziris it is not uncommon to see many of both sexes returning from the fairs decidedly tipsy, the result of deep potations of *sur*, or *lugri*, a kind of weak acid beer, generally brewed at home. In Rupi and Seoraj drinking is considered a reproach, and almost universally eschewed. In the winter, when confined to their houses by the snow, the men spend most of their time in weaving blankets and cloth for sale or home consumption. The women in Kulu do not weave. Braioto, Narayanoo, Panoo, Santoo, Dilloo, Kamloo, Lajoo, Dadoo, Jethoo, and Khikoo are common names of men among Kanets.

Dagis and Kolis. The popular explanation of the word Dagi is that it is derived from *dag* (cattle). The tribe handles the carcasses of dead cattle. There are very few in Kulu proper who abstain from touching the dead. There are more in Seoraj, but they admit they are called either Dagis or Kolis; and whether they abstain from touching carcasses or not, all eat, drink and intermarry on equal terms. Sabboo, Bukhoo, Gareehoo, Nanakoo, Fatoo, Telu, Doboo, Khyaloo, and Nandoo are common names among Kolis.

DRESS

The people are usually well and comfortably clad in homespun cloth made from the wool of the flocks that abound in their hills, but will often wear very ragged garments for everyday work. The dress of both sexes is picturesque. A single blanket, white, or white checked with red, or black and white chess-board pattern, is the only garment worn by a woman, but it is so carefully and neatly adjusted, pinned at the bosom with a solitary pin and gathered in by a sash at the waist, that while showing gracefully the lines of the figures it forms a complete and modest robe covering the arms, the body, and the legs to below the knees. Socks or stockings are luxuries, but woollen gaiters are occasionally worn. It is to her head-dress that the Kulu woman devotes all her arts of coquetry. The young girls go bare-headed with their hair plaited into long pigtailed hanging down their backs, and sometimes lengthened by the addition of cotton thread for ornament only. Older girls twist the pigtail into coils arranged on the top of the head, with a coquettish little cap perched just above the temples or sometimes a larger cap crowning the chignon; but the favourite head-gear is a kerchief (*thippu*), black or scarlet, confining the whole of the hair, bound tightly above the temples to cover the head so as to show the whole

of the brow, and tied in a knot at the back of the neck. The whole is prettily set off by a silver ornament which secured to the centre of the kerchief on the top of the head supports a pendant hanging over the forehead, and two strips of dainty filigree work, which, drooping over either temple, are attached to rings in the ears. Great bunches of silver ear-rings are worn, and two nose ornaments of gold, one a leaf-shaped pendant (*bulak*) carried by both maids and wives, but never by widows, and the other a plain large ring, the distinguishing mark of a married woman. The throat is often loaded with necklaces: one or two bracelets on each wrist; and silver anklets, sometimes plain and sometimes curb chain pattern, are peculiar to certain localities. The full show of ornaments is only exhibited at fairs and feasts and women who on account of being in mourning are unable to wear their jewellery sometimes hire it out for small sums to others on such occasions.

A man's dress consists of a loose woollen tunic, white, grey, or brown, girt in at the waist with a sash. Loose woollen trousers, gathered in tight at the ankle, are added in cold weather or on gala occasions, but are often dispensed with on hot days or when hard work is required. A white or checked blanket like a plaid lends something of the picturesque to this loose fitting costume: it is worn round the chest, the ends crossing at the back and then brought forward over the shoulders from which they would hang down to the thighs were they not secured each by a large pin to the portion of the plaid crossing the chest and then flung back again over the shoulders. Between the two pins hangs a neat steel or brass chain supporting a bunch of small surgical instruments, a probe, a lancet, a pair of pincers and similar contrivances for operating on sheep and cattle. Otherwise no ornaments are ordinarily worn except, occasionally, a necklace or an amulet, or a charm in memory of a deceased relative. The head-dress is a round black cap, with red edging, sometimes ornamented by means of silver pins with broad carved beads stuck in it; on festival days too plumes of Monal crest are worn by such as are the fortunate possessors of them. In Outer Saraj *pagris* are very generally worn, and also white cotton caps. Shepherds tending their flocks prefer a large conical woollen cap with flaps. Nearly every man carries a long cylindrical basket on his back to hold the wooden spindle and the wood with which he spins wool as he walks along; and a flint and steel, with a small spindle-shaped wooden box for holding tinder, for though matches are sold in Kulu the older contrivances are more trustworthy in wet weather.

All are fond of flowers, and on festival days wear garlands of yellow marigolds round their necks and put bunches of narcissus and corn flower in their caps or in their hair.

FOOD

The daily meals of the Kulu people are three in number — breakfast (called *kalar*) at 8 or 9 a.m.; lunch (*dopahri* or *dhiyan*) at 1 or 2 p.m.; and



FIG. 20. View of a Kulu village against the snow ranges. The fields are well terraced and neatly laid out with fruit trees growing all around the habitation



FIG. 21. A Kulu shepherd holding newly born lambs in the folds of his dress



FIG. 22. A Kulu housewife



FIG. 23. The village postman announcing his arrival in a Kulu village

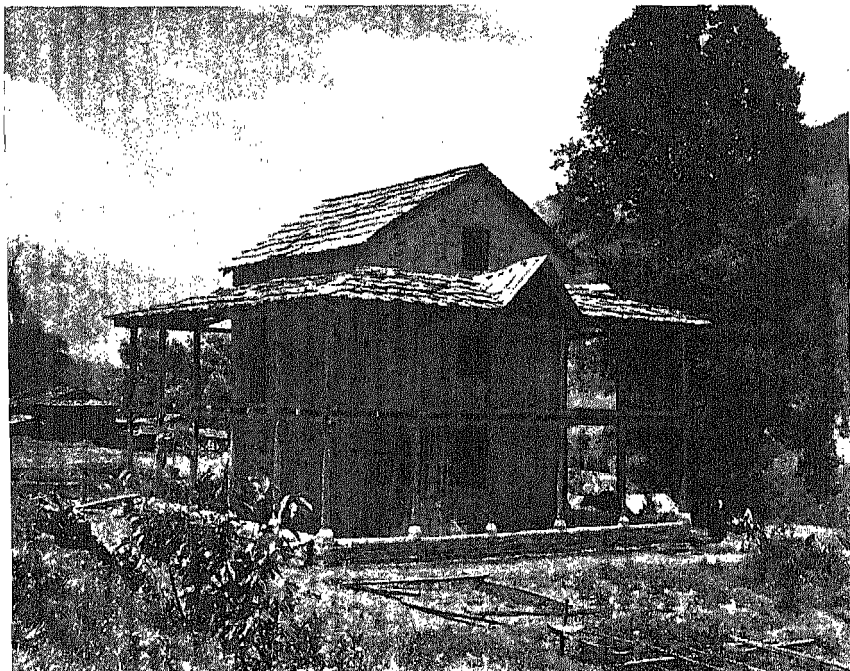


FIG. 24. A typical house of a middle class family in Kulu

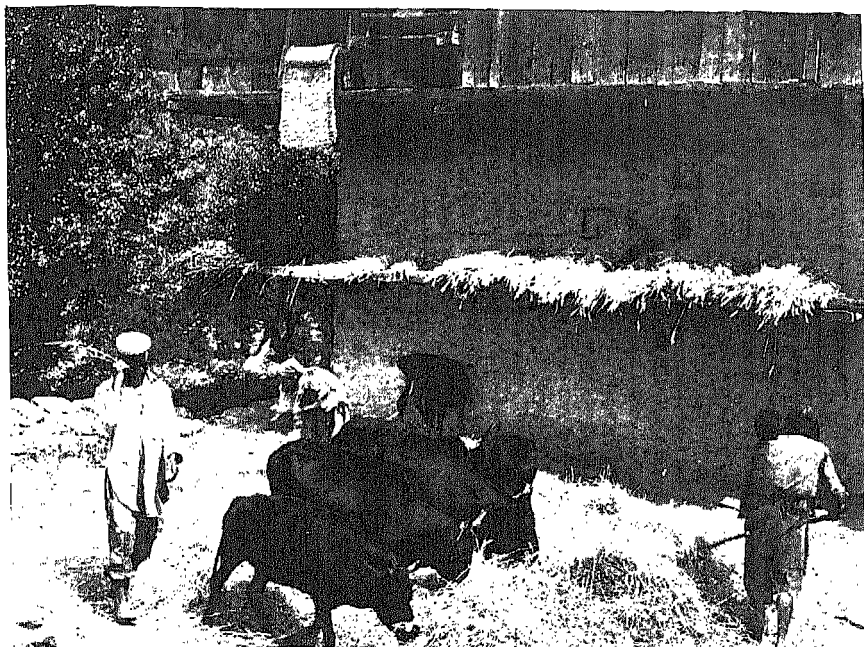


FIG. 25. Threshing paddy in a Kulu village



FIG. 26. A water spring in Kulu

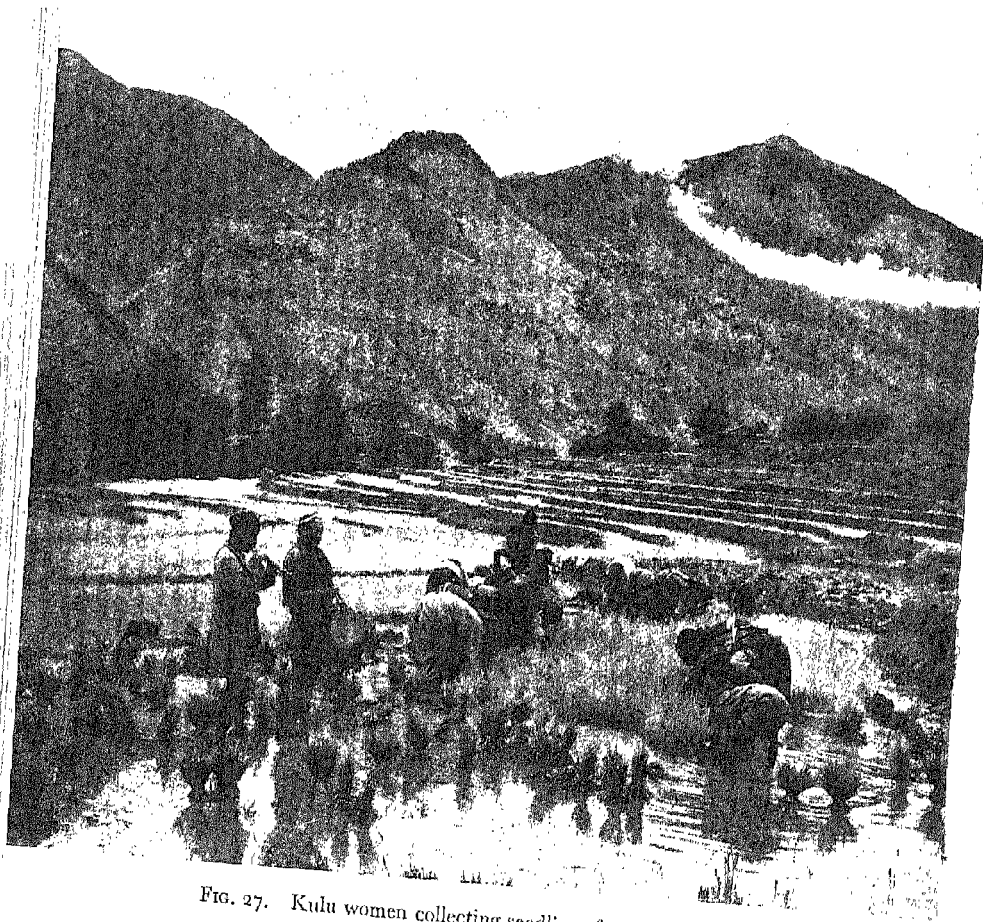


FIG. 27. Kulu women collecting seedlings from a paddy nursery



FIG. 28. A temple at Manali, Kulu



FIG. 29. A typical village in Saraj with the houses loosely grouped together and presenting an air of solid comfort



FIG. 30. A working mother of Kulu

dinner (*biāli*) at sunset. Those who are better off eat the better kinds of rice and wheaten flour, but the more general food is barley, maize, amaranth, the poorer kinds of rice and vegetables. *Sidhu* is the name given to cakes made of barley or maize flour. *Phimrā* is mixture of wheat or amaranth with rice and vegetables; *kappi* is a concoction of rice and *sarson* leaves stewed. The universal drink is *lugri*, which is made by Lahaul settlers. There are several sorts of *lugri*. The best is made from honey and certain shrubs known collectively as *dhaeli*; another kind is made from rice; and a third from wheaten flour or *chapātis* soaked in water. Fermentation is caused by the use of yeast (*phaf*) imported from Ladakh, or of another condiment known as *mandal*.

In Kulu, food is generally cheap, and from the large number of cows kept, milk is plentiful. The poorer classes live on barley, buck-wheat and amaranth, which is also exported to the plains for use on fast days. Large quantities of rice, also of *kodrā*, are used in the manufacture of hill beer, known as *lugri*, *sur*, *chakati*, which is drunk largely at fairs and marriages; and also when the rice fields are being worked up. The people of Rupi and of Seoraj do not drink *lugri*.

VILLAGES

Viewed from some distance, a Kulu village usually presents a picturesque appearance and has an air of solid comfort. Generally, the site is a rocky spur protruding from the wooded hillside or a stony hillock on the edge of the forest. The situational aspect is pleasing to the eye, though the permanent dung-heaps maintained for supplying manure to the fields prevent the village from being healthy and give it a slovenly appearance.

The houses are generally detached, being only loosely grouped together, their arrangement depending on the nature of the ground on which they stand. In structure, they are quaint but pretty, resembling square or oblong turrets which are greater in height than in length or breadth. They have sloping gable roofs covered with slates or fir shingles.

The length and the breadth of buildings are fixed according to customary standards, the most common being $11' \times 9'$, $19' \times 9'$, $15' \times 11'$, $18' \times 9'$, and $18' \times 11'$. The house goes up to three or four storeys. Generally no mortar is used in its construction. The walls are of dry stone masonry, the stones being kept in place by timbers placed upon them at vertical intervals of two or three feet. An ordinary house of 40 or 50 ft. in height thus shows 10, 20 or 30 layers of beams in its walls, the interstices being filled with blocks of roughly squared grey stone.

The basement has a ceiling of wooden planks which form the floor of the upper storey. It serves as a cattle shed, though the bigger cultivators generally have separate cattle enclosures and barns. The first floor is used mostly as a granary or store-room. The second floor is provided with a wooden balcony which protrudes from one or more sides and adds to the living space. A

FARMERS OF INDIA

rough ladder placed against the outer wall leads to the balcony through which access is gained to the interior. Round the house is a yard paved with flat stones and enclosed by a running wall.

In upper Kulu, the first floor granary is often omitted and there are only two storeys. In Saraj, larger houses of four or five storeys are sometimes built. Ordinarily, cattle are harboured in the house. A large proprietor who generally has more cattle builds separate cattle sheds and barns.

CHAPTER XI

FARMERS OF KANGRA VALLEY

THE agricultural population of Kangra consists of Brahmins, Rajputs, Gaddis and Ghirths. The term 'Rajput' now includes Rathis also who have ennobled themselves like others, and being closest to the Rajputs have been gladly received in the fold. The Rajputs, Brahmins, and Gaddis are perhaps immigrants from the plains, while the Ghirths are the original inhabitants. The Rajputs and the Brahmins abjure manual labour and spurn cultivation of land. The recent land reforms, particularly those giving greater rights to the actual tillers of the soil, have administered a shock to their conservatism and they are now bestirring themselves to adjust themselves to the changed conditions.

Brahmins. Almost without exception, the Brahmins profess to belong to the great Saraswat family, but recognise an infinity of internal sub-divisions. The first important distinction to be noted is that between those who follow, and those who abstain from, agriculture.

Rajputs. The descendants of all the noble houses of Rajputs are distinguished by the honourable title of Mian. When approached by their inferiors, they receive the peculiar salutation of *jai dia* offered to no other caste. Among themselves the same salutation is interchanged. The inferior — for there are endless gradations even among the Mians — first offers the salutation, and the courtesy is usually returned. In former days great importance was attached to this salutation; unauthorised assumption of the privilege was punished as a misdemeanour by heavy fine and imprisonment.

A Mian, to preserve his name and honour unsullied, must scrupulously observe four fundamental maxims: He must never drive the plough; he must never give his daughter in marriage to an inferior, nor marry himself much below this rank; he must never accept money in exchange for the betrothal of his daughter; and his female household must observe strict seclusion. The prejudice against the plough was at one time perhaps the most inveterate of all. Some hold that it is sacrilegious to lacerate the bosom of mother earth with an iron plough-share; others believe that the offence consists in subjecting the bull the sacred animal, to labour. But, probably, the real explanation of the prejudice is that the legitimate ornament of the brave Rajput class is the sword and not the plough. The exchange of a noble for a ruder profession is considered tantamount to the renunciation of the privileges of the caste. This prejudice is, however, dying out now.

The seclusion of women is still maintained with severe strictness. The Rajput houses can always be recognised by one familiar with the country.

They are placed in isolated positions, either on the crest of a hill which commands approaches on all sides, or on the verge of a forest sedulously preserved for seclusion. Where natural defences do not exist, an artificial growth is promoted to afford the necessary privacy. In front of the dwellings, removed about fifty paces from the house, stands the *mandi* or vestibule, beyond whose precincts no one unconnected with the household can venture to intrude.

Mr. Barnes writing about the Rajputs observes: "It is melancholy to see with what devoted tenacity the Rajputs cling to these deep-rooted prejudices. Their emaciated looks and coarse clothes attest the vicissitudes they have undergone to maintain their fancied purity. In the waste land which abounds in the hills a livelihood is offered to those who will cultivate the soil for their daily bread; but this alternative involves a forfeiture of their dearest rights, and they would rather follow any precarious pursuit than submit to the disgrace. Some lounge away their time on the tops of the mountains, spreading nets for the capture of hawks; for many a day they watch in vain, subsisting on berries and on game accidentally entangled in their nets; at last when fortune grants them success they despatch the prize to their friends below, who tame and instruct the bird for the purpose of sale. Others will stay at home and pass their time in sporting either with a hawk, or, if they can afford it, with a gun; one Rajput beats the bushes, and the other carries the hawk ready to spring after any quarry that rises to the view. At the close of the day, if they have been successful they exchange the game for a little meal, and thus prolong existence over another span. The marksman armed with a gun will sit up for wild pigs returning from the fields, and in the same manner barter flesh for the necessaries of life. However, the prospect of starvation has already driven many to take to the plough, and the number of seceders daily increases. Our administration, though just and liberal, has a levelling tendency; service is no longer to be procured; and to many the stern alternative has arrived of taking to agriculture and securing comparative comfort, or enduring the pangs of hunger, and death. So long as any resource remains the fatal step will be postponed, but it is easy to foresee that the struggle cannot be long protracted; necessity is a hard task-master, and sooner or later the pressure of want will eventually overcome the scruples of the most bigoted."

The household duties of a Rajput woman do not differ from those of the women of other classes. She grinds the corn, cooks the food, spins, and brings wood, fuel and water for the family. But on account of her seclusion, she is not, except among the lower grades, available for agricultural labour, and unlike the Rathin or Ghirthni, can take no part in the outdoor field work.

Rathis. They are essentially an agricultural class, and are found throughout the Palampur and Hamirpur tehsils. The Rathis and Ghirths constitute

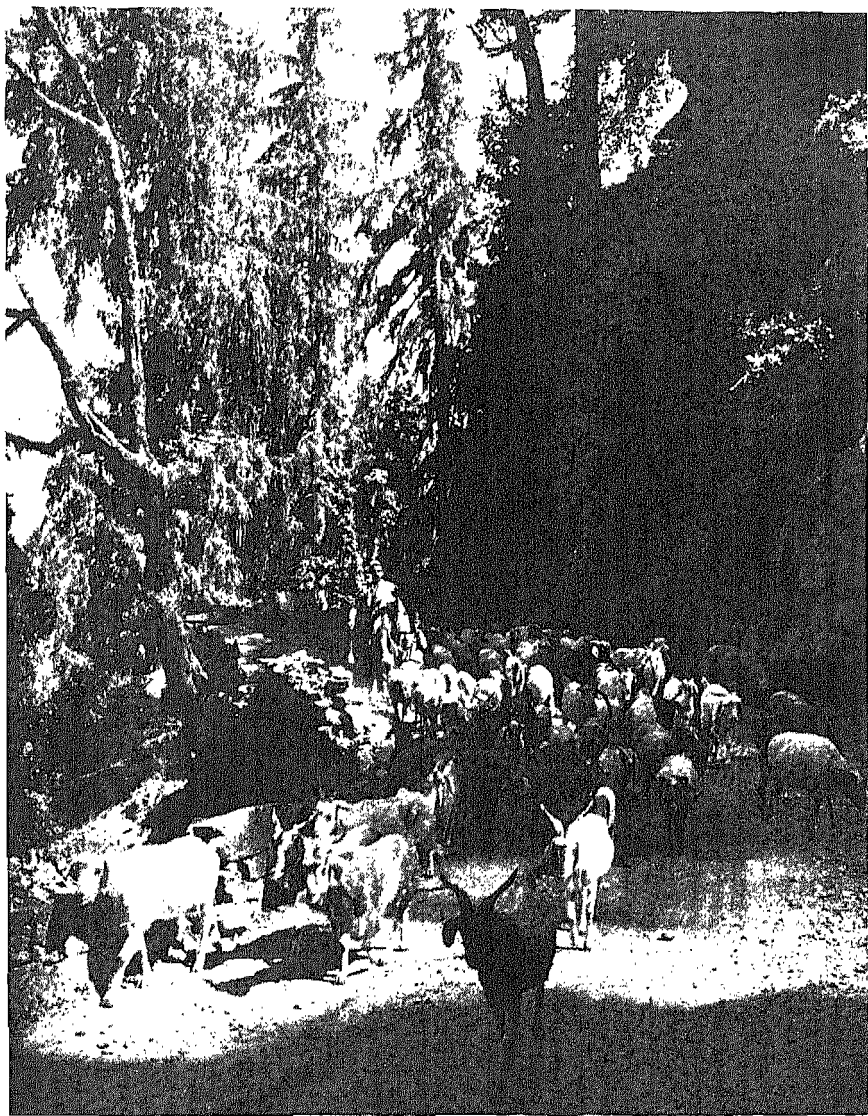


FIG. 31. A Kangra shepherd with his flock

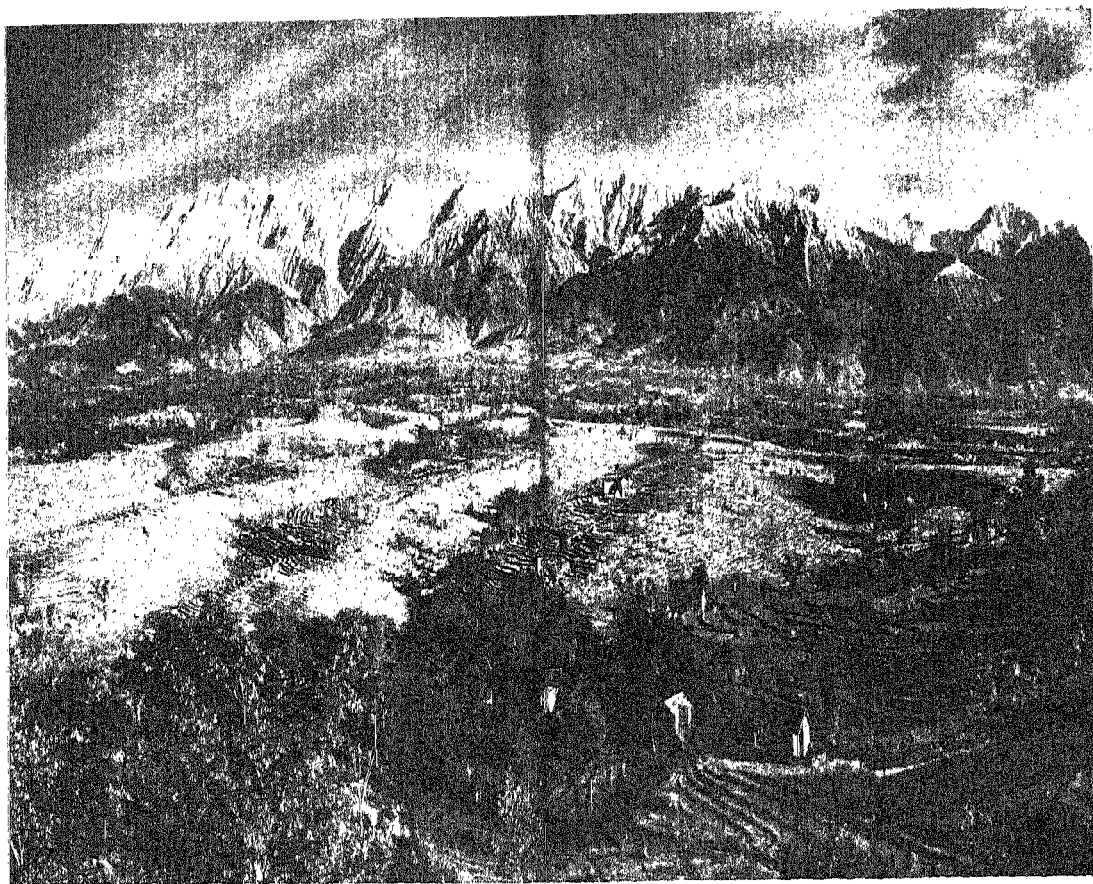


FIG. 32. A panoramic view of the Dhaulala Dhar from Andretta, a picturesque village near Palampur in Kangra Valley



FIG. 33. A Gaddi woman with her child



FIG. 34. Two Gaddi children with their grandfather

the two great cultivating tribes in Kangra proper and the hills below it, where they have much the same position as the Kanets have in the eastern areas. In all the level and irrigated tracts, wherever the soil is fertile, the Ghirths abound, while in the poorer uplands, where the crops are scanty and the soil demands severe labour, the Rathis predominate. It is as rare to find a Rathi in the valleys as to meet a Ghirth in the more secluded hills. Each class holds possession of its domain, and the different habits and associations created by different localities have impressed upon the castes their own peculiar character. The Rathis generally are a robust and handsome race, their complexions usually fair and their limbs athletic as if exercised and invigorated by the stubborn soil upon which their lot is thrown. On the other hand, the Ghirth is dark and coarse featured; his body is stunted and sickly; goitre is fearfully prevalent among his race; and an impression occurs to the mind that, however teeming and prolific the soil, however favourable to vegetable life, the air and climate are not equally adapted to the development of the human frame. The Rathis are devoted to agriculture, not unacquainted with the use of arms, and are honest, manly, and industrious.

Ghirths. The sub-divisions of the Ghirths are very numerous. Ghirths of Mukerian in Dasuya tehsil of Hoshiarpur are called *Changs*, while those in Una are called *Bahtis*. The legend current among them is that they come from Deccan, and at marriages they worship their *Deota* with hands joined facing south. They are snake-worshippers, and every group of houses has a small shrine for this purpose. On the 5th *Sawan* special worship of snakes is performed.

The Ghirths predominate in the valley of Palam, Kangra and Rihlu. They are found again in the Haripur Valley, and are scattered elsewhere in every portion of the district, generally possessing the richest and the most open lands in the hills. The open valleys, although containing the finest lands, are also the only accessible portions of the hills. The more refined castes preferred the advantages of privacy and seclusion. They abandoned the fertile valleys to less fastidious classes, whose women were not ashamed to be seen nor to work in the fields.

The Ghirths are a most indefatigable and hard-working race. Their lands yield double crops, and they are incessantly employed during the whole year in the various processes of agriculture. As the rains set in they are engaged in planting out the young rice, the staple commodity of the valleys. For this purpose the fields are worked into mud, nearly two feet deep — an operation in which the women take a prominent part, standing all day in the field up to their knees in mire, with their petticoats looped to their waists. The rice is subjected to several weedings, and when ready for the sickle, the women help to reap, stock and winnow the grain. These labours are not concluded before the time for winter sowings, when a similar though perhaps lighter round of toil commences for another crop. In



FIG. 35. A newly married girl of Kangra

To a sick man do not give me, father, do not give me, father.

I shall become a widow while my hair is still freshly done.

To a herder of sheep give me, father, give me, father.

He will give me his pocket-full of meat.

To a tender of sheep give me, father, give me, father.

He will give me a *cholā* for my back."

If the economy of any agricultural tribe can be called self-sufficient, it is that of the Gaddis. Their staple food is barley which they grow in their fields. Parched barley grain is ground into flour. For sugar they mostly use honey. Apart from occasional use of mutton their chief food is goat's milk which they consume in large quantities. They prefer the crude salt of the Guman mines of Mandi. For their clothing they depend on the wool of their sheep which their womenfolk spin and weave. Dressed in their white woollen frocks, and wearing high peaked caps, they appear like Anglo-Saxon farmers and shepherds of the sixteenth century. Their shaggy black dogs with dented iron collars are their constant companions, and some of them have successful encounters with leopards to their credit.

The Gaddi shepherds remain in the Lahaul Valley for about six months. It takes them about a month to reach Lahaul from Kangra. Wearing a woollen coat and a blanket, sometimes they sleep out exposed to icy winds and are none the worse for their experience. Sometimes, they creep among the huddled-up flocks and lie using two to three sheep on top of them for a quilt. During the rains they creep into rock shelters which are fairly common. Their sheep are strong and hardy, and even Bhotia traders from Kumaon buy a large number of them at high prices for carrying merchandise between the snowy ranges of Kumaon and Tibet.

The grazing grounds or sheep-runs in Lahaul are called *dhārs* or *bans*. A *dhār* or *ban* is often sub-divided into several *vands* each *vand* containing enough ground to graze one full flock of sheep and goats. Each *dhār* has its more or less precisely fixed boundaries; and the title to it is understood to have originated in a grant from a Raja of Kulu or a Thakur of Lahaul. Among the Gaddis some transfers by gift or sale appear to have taken place, and in several cases the original family which obtained the grant has long ceased to use the *dhār*; but in recognition of its old title the shepherd now in possession has to halt a day on the journey back and let his sheep manure the fields of the original owner. The Gaddi shepherds pay one or more sheep for each run to the Thakur of the *kothi* or to the *negi*. This tax is known as the *kar* or in the Lahauli language as *rigetal*. Most of the Gaddi shepherds also give a sheep or two under the name of *bhaggatī* to the men of the village next below their run. Such sheep are sacrificed and eaten in a village feast at which the shepherds attend.

Gaddi women are well-known in the Punjab Himalayas for their beauty. An open air life, milk diet, and Khatri descent explain their good looks.

addition to the cultivation of their fields, the Ghirth women carry wood, vegetables, mangoes, milk and other products to the market for sale. From these details it will be perceived that the Ghirths have no easy time, and their energies and powers of endurance must be most elastic to bear up against this incessant toil. To look at their frames, they appear incapable of sustaining such fatigue. The men are short in stature, frequently disfigured by goitre, dark and sickly in complexion, with little or no hair on their faces. Both men and women have coarse features, more resembling the Tartar physiognomy than any other type, and it is rare to see a handsome face, though sometimes the younger women may be called pretty. Although industrious cultivators, they are very litigious and quarrelsome; but their disputes seldom lead to blows; and though intemperate, they are still thrifty. A Ghirth seldom wastes his substance in drink. In their dealings with one another they are honest and truthful.

Gaddis. The most remarkable group of people in Kangra Valley are the Gaddis. The majority of them are Khattris though a few are also Brahmins and Rajputs. In fact they were the first refugees from the plains who sought sanctuary in Kangra Valley. The tradition is that their ancestors migrated from Lahore during the reign of Aurangzeb when proselytism to Islam was at its height.

Gaddis are a simple, honest, and a virtuous race known for their truthfulness and straight dealings. Their simplicity can be judged from the fact that in the early days of the British rule whenever they were fined by the Kangra authorities they would pay an equal penalty into the Chamba treasury, as they were subjects of both. Apart from forest offences which are committed by nearly all the hill people, crime is almost unknown among them. They are lively and cheerful, and on occasions of festivals and marriages get together and spend their time singing, dancing and consuming large quantities of *lugri*. Their songs have a simple cadence, which is pleasing to the ear.

The Gaddis are a semi-pastoral and semi-agricultural people, the greater part of their wealth consisting of flocks of sheep and goats. During winter they graze their flocks in the Kangra Valley, in Mandi and Suket, and in summer they drive across the Dhaula Dhar range into Chamba and Lahaul. Many of them own land on both sides of the range, and cultivate the winter crop of wheat in Kangra, and, migrating with their flocks in summer, raise crops at Bharmour on the other side of the Dhaula Dhar.

That the Gaddis love their pastoral life is amply proved from the Gaddi girl's song in which she gives her choice of husband. She sings:

"To an old man do not give me, father, do not give me, father.
I shall be a widow while my hair is freshly done.
To a servant do not give me, father, do not give me, father.
A call comes, he gets up and goes, and leaves me.
To one who lives far away do not give me, father, do not give me, father.
To one who grazes a herd of cattle give me.

VILLAGES

The fiscal 'village' of Kangra has very little resemblance to the villages of the plains. The houses are scattered promiscuously over the country, each family living upon its own holding in a state of isolation from the other families which are grouped with it into the fiscal circuit. Some of these circuits are small; others are of considerable extent and embrace a considerable population; but even in the largest it is rare to find more than a few houses grouped together on any one spot. The hamlets differ greatly in size. They are largest and most compact in the Hamirpur tehsil and parts of the Dera and Nurpur tehsils. There they are called *graon* or *gaon*. In other parts, the name given to them is *larh*. The oldest and largest hamlets are generally held by families of good caste, who, on various grounds, used to hold land free of rent, in whole or part, under the hill Rajas, and who, therefore, had a special motive for sticking together. Generally speaking in that part of the country which is nearest to the plains the landholders had stronger feeling of property in the soil, and it is there that the largest hamlets are found.

Every man resides upon his own farm and builds his cottage in some selected spot, open as a rule to the sun, and yet sheltered from the wind. The house is of sun-dried bricks, having generally two storeys. The inmates occupy the lower floor, the upper being used during the greater part of the year as a lumber-room or store-room for grain. During the rains the upper room is used for cooking and in many cases as a sleeping room, the whole family occupying it at night in order to escape the close and unhealthy air of the ground floor. The upper roof is generally made of thatch and is thick, substantial, and neatly trimmed, slates are also used. The outside walls are plastered with red or light-coloured earth. The front space is kept clean and fresh, and the whole is encircled by a hedge of trees and brambles, for maintaining privacy and affording material for repairs. On one side of the cottage is the shed for the cows and bullocks, called *kurhal* and another building or *ori* for housing sheep and goats. If the owner of the farm is a man of substance, he usually possesses a buffalo or two; these are penned in separate tenements called *menhara*. The thatch of the cottage is renewed every third year; and in areas where grass is plentiful, a fresh covering is added annually. The ridge-pole is made of *tun*, *sisu*, *ohi*, or fir. The *harar*, *baheerā* and *pipal* are avoided on various superstitious grounds, while the *siris* is reserved exclusively for the dwellings of *rajas* or of gods. Every year, in the season of the *Naorātrā* in September, the cottage is replastered inside and outside, a labour which devolves upon the women in all but the highest castes. Similarly, on the occasion of a marriage the bridegroom's house is always adorned with fresh gay-coloured plaster.

The entrance to the cottage is usually to the east or to the south; but there is no general law, and the favourite position varies in different parts of the district. The west, however, is superstitiously eschewed. Again,

Their features are regular and refined, noses are straight, eyes are bright, complexion is olive-white, and expression mild and engaging. Unlike the Rajput and Brahmin women of Palam Valley, they are bright and cheerful, and some of them really look like queens of the mountains. Their beauty is the theme of many a lull-song, and even Raja Sansar Chand, the well-known patron of Kangra Painting, fell in love with Nokhu a pretty Gaddi girl and made her his queen.

The names of Rajputs and Brahmins in Kangra are more or less the same, and are mostly related to heroic and lordly ambitions. Sansar Chand, Partap Singh, Ram Singh, Jai Chand, Bahadur Singh, Hoshiar Singh, Jit Ram, Abhai Ram, etc., are some examples of such ambitions. Many names are also after those of the Hindu gods, and among these 'Ram' is generally the favourite. The names of Ghirths are generally different from those of the other tribes, and are usually one-word names, such as, Marru, Maniakhu, Porkhi, Rasila, Khazana, Jagtu, Butu, Rijhu, Chandu, Rikhu, Kalku, Dumnu, Churu, Dittu, etc. The names most common among the Rajput women are Jai Dai, Maya Wati, Rani, Kamlo, Gitan Dai, Naro, Mansan Dai, Isro Dai, Inder Dai, Sita Devi, Taro, Godavari, Durga Dai, Jamuna Dai, Chander Wati, Krishna Dai, Satya Dai, and Sheelan Dai. Ghirth women have such names as Sobhan, Maina, Phoolan, Kisni, Kalasan, Paro, Rohani, Sooti, Koulu, Kaulan, Chuhri, Sundho, Dhani, Sitlu, Charju, Dhupu, Banarsi.

DRESS

In the lower parts of the valley, the dress of men as well as of women resembles that of the Hindus of the Punjab plains. Men wear turbans, pyjamas, and shirts of cotton cloth. Women wear shirts and *ghagris* and drape their faces with green, yellow, and blue *dopattās*. *Bālu* or the nose-ring is the popular ornament with them. With the exception of unmarried girls and widows, every woman displays this piece of finery, which is a sign of married life. Except in the lower classes, the *bālu* is made of gold, and its circumference is limited only by the taste of the possessor.

In the upper reaches of the mountain-country, the people have a distinctive apparel. Thus, the Gaddis can be easily distinguished by their peculiar clothes. They wear a loose frock of white wool (*cholā*) secured round the waist with yards of black woollen ropes. Their head-dress is a high-peaked cap which they pull down over the ears in the severe cold of high altitudes. Their legs are usually bare. In their *cholās* the Gaddis store many articles, and they can be seen even carrying one or two young lambs just born, with their innocent faces peeping out of the folds of their garments. They also carry in their *cholās* their meals tied in leather pouches. The women wear a woollen frock and a petticoat printed in red.

CHAPTER XII

FARMERS OF CENTRAL PLAINS

THE central plains comprise the districts of Amritsar, Gurdaspur, Ferozepur, Jullundur, Kapurthala, Hoshiarpur, Ludhiana, Bhatinda, and Patiala, and parts of Ambala and Sangrur districts. The districts of Amritsar and Gurdaspur comprise the Majha tract which formerly included Lahore district also (now in Pakistan). The districts of Kapurthala, Jullundur, and Hoshiarpur, which lie between the Beas and the Sutlej rivers comprise the Doaba tract. Ferozepur, Bhatinda and Patiala districts constitute the Malwa tract. The district of Ludhiana, the Fatehgarh tehsil of Patiala district, and Rupar and Kharar tehsils of Ambala district constitute the Poadh.

Climate, diet, and genetic factors have given special characteristics to the peasants of each tract. The peasants of Majha and Malwa are tall, thick-boned and well-built. The peasants of Doaba are generally of light build though more intelligent. The peasant communities of the Poadh are mid-way between the two, the Majhails and the Doabias.

The principal farming communities of the Central Plains are described below.

Sikh Jats. The Sikh Jats are the finest of the Punjab peasantry. In physique they are inferior to no race of peasants in the world, and among them are men who in any country would be deemed fine specimens of the human race. The Sikh Jat is generally tall and muscular, with well-shaped limbs, erect carriage, and strongly marked and handsome features. They are frugal and industrious. Though not intellectual, they have considerable shrewdness in the ordinary affairs of life, and are outspoken and possessed of unusual independence of character. They are generally litigious, their natural stubbornness leading them to persevere in a case long after all chance of success is gone, but at the same time they are perhaps one of the most honest, industrious and enterprising communities in India. Describing the colonists of Lyallpur Canal Colony, Mr. M. L. Darling refers to the Jat Sikh as follows: "A colony could have hardly had better material, for Ludhiana, Jullundur and Amritsar represent the flower of Indian agriculture. They are the home of the Jat Sikh, who has been described as 'the most desirable of colonists'. It would be difficult to say which of the three has produced the best type: for industry and thrift; the Ludhiana Sikh is hard to beat, and the Sikh from Amritsar, though he may be spend-thrift and violent, is unsurpassed as a cultivator. Grit, skill in farming, and fine physique are characteristics common to all, and in his new environment the Jat Sikh has reached a point of development probably beyond

should a neighbour design his cottage so that the ridge-pole of his roof crosses at right angles with the entrance of another cottage, there would be an appeal to the District Officer to prevent so unlucky an arrangement, for the hill people have a general superstition that some disaster would be sure to befall the owner of the house thus menaced. The Rajputs and Brahmins always occupy the highest and most secluded parts of the village area. In the houses of the higher castes it is not unusual, for the sake of additional privacy, to build the cottages of the homestead in the form of a quadrangle, the windows and doors all facing inwards.

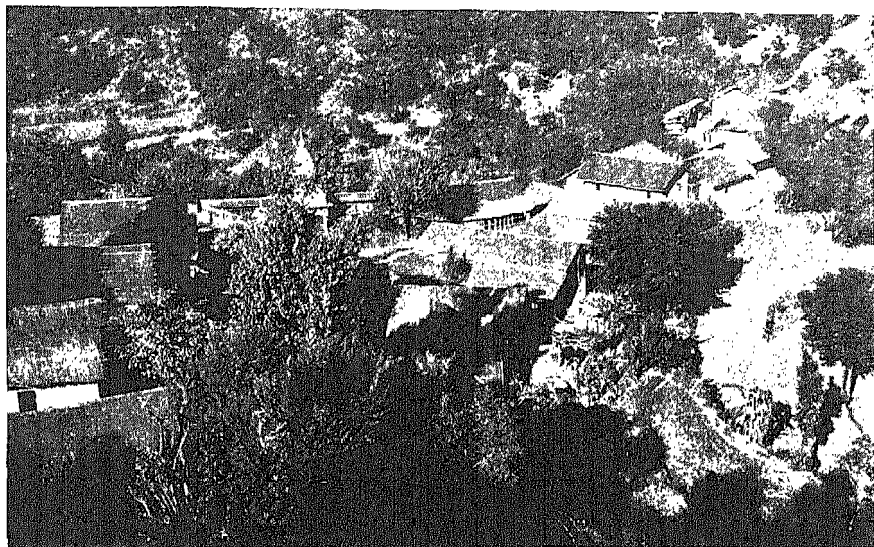


FIG. 36. A village in the Siwaliks of Hoshiarpur district

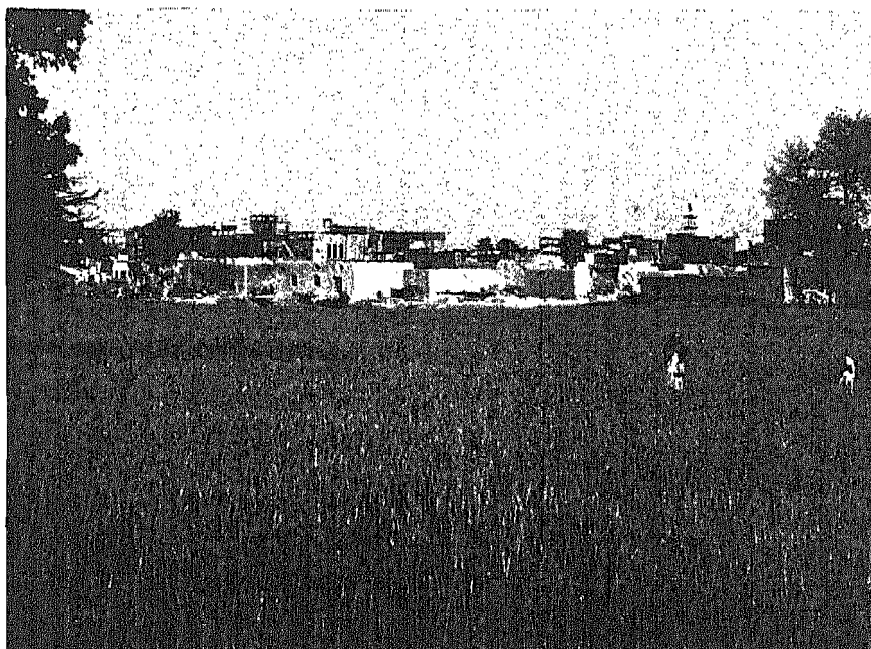


FIG. 37. View of Kartarpur, a thickly populated village in Jullundur district

anything else of the kind in India. In less than a generation he has made the wilderness blossom like the rose. It is as if the energy of the virgin soil of the Bar had passed into his veins and made him almost a part of the forces of nature which he has conquered ”.

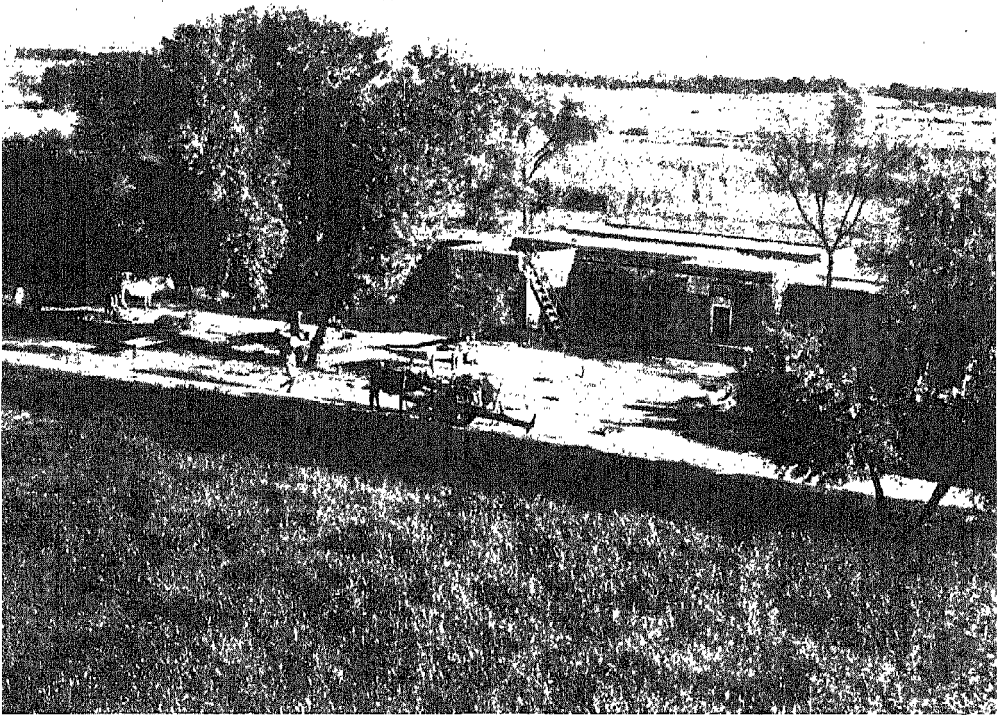
Sikh Jats make admirable soldiers, are steady in the field, and trustworthy in difficult circumstances. Large numbers, particularly of the Doaba Jats, have also migrated to countries like Canada, U.S.A., and Africa, and have established themselves there firmly. In California they have built up a high reputation as farmers, and in Canada they have earned a name in the lumber industry. Frugal by nature, they send large remittances to their families in their native villages.

The women are inferior in physique to the men, and age sooner, probably from the effects of early marriages and domestic drudgery. But they have the same industrious habits as the men, and make good housewives, frugal and careful in management, and, therefore exercising very considerable influence in the family.

The real origin of the Jat is a point which is always likely to remain in dispute. One authority, General Cunningham, maintains that the two tribes of Jats and Medes were the first Indo-Scythian conquerors of this part of India, and that towards the end of the second century before Christ they immigrated from the country south of Oxus, at some time later than Alexander's invasion. Other authorities are of the view that the Jats had their origin in Rajasthan and gradually occupied the Punjab from that direction. The commonest tradition among the people themselves is that they are of Rajput origin and came from the east rather than from the west.

The Sikh Jats are divided into a number of clans which are found concentrated in groups of villages. In the districts of the Majha, the more important of these clans are Sindhu, Gill, Randhawa, Sidhu, Dhaun, Dhillon, Bal, Aulakh, Pannun, Chahil, Sohal, Chhina, Mahil, Bhullar, Kang and Man. The main clans of the Malwa are Sidhus, and Sidhu Barars, Gills, Dhariwals, Sandhus, Khosas, Bhullars and Buttars. The principal clans in the Doaba are Bains, Rai, Purewal and Randhawa; and in the Poadh they are Grewal, Gill and Sandhu.

The names of the sikh farmers make an interesting study. The names are given after months of the *Vikrami* calendar, occupations, Sikh *gurus*, Hindu deities and heroes and even after land and plants. Among the more educated, there is an increasing tendency to assume Sanskrit names. The common names after the months of *Vikrami* calendar are Sawan Singh, Maghar Singh, Maghi Ram, Chet Singh, Basakha Singh, etc. Service in the army is very popular among the Sikh farmers and this explains the use of names such as Jarnail Singh, Karnail Singh and Kaptan Singh. In the districts of Malwa other names after occupations are Master Singh and Babu Singh. The names given after the Sikh Gurus are Nanak Singh, Amar Singh, Ram Singh, Govind Singh, Arjun Singh, Hargovind Singh, Teg Bahadur Singh, etc.



Note the consolidated fields and straight paths



FIG. 40. Grain being pounded
with a hand pounder

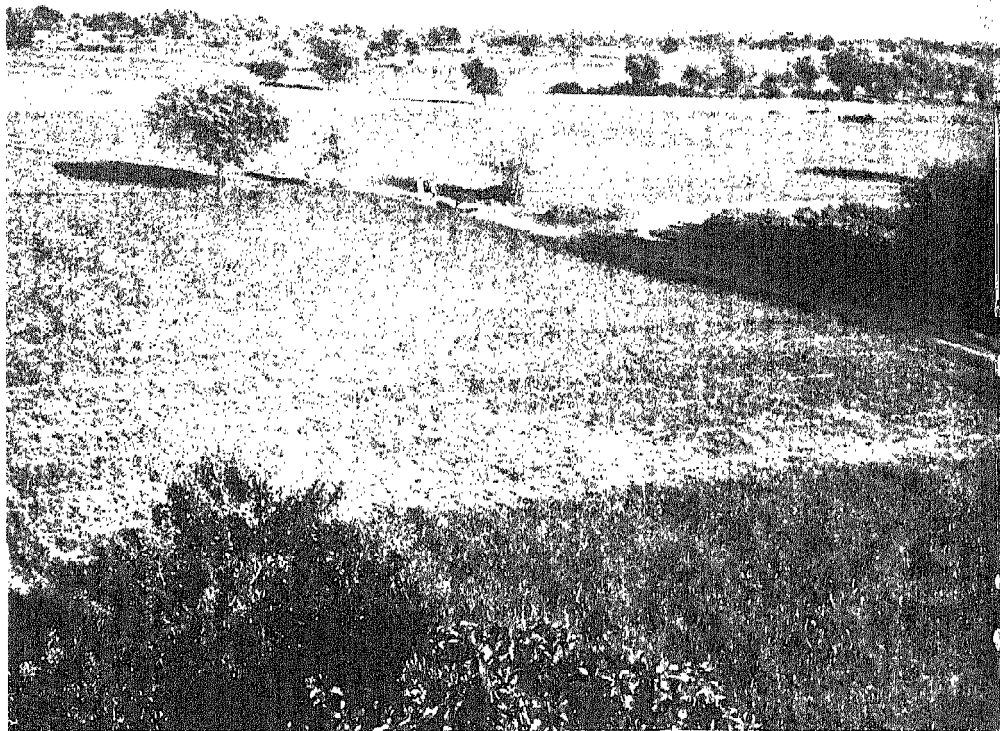


FIG. 38. A homestead in Jullundur district.



FIG. 39. A kitchen corner in a Doaba country house. Earthen pots are used for keeping grain, and the *Madhani* or the curd churner for preparing butter

Sikhism has its roots in Hinduism and Hindu deities and heroes are equally popular. This explains the popularity of names after Hindu gods and heroes such as Ram Singh, Ganesha Singh, Lachman Singh, Shiv Singh, Harnam, Harikishan, Sham Singh, Harbhajan, Arjan Singh, Gurdit Singh and so on. Among the more educated, names with Sanskrit origin such as Rajinder, Narinder, Rabinder, Harnam, Narinjan, Gurbachan, Mohinder, Joginder, Amrita, Harcharan, Gurcharan, Sundar, Devinder, etc. are popular. Among the females, the name usually ends with 'Kaur' and common names for women are Jai Kaur, Kripal Kaur, Amar Kaur, Ram Kaur, Sant Kaur, Ishar Kaur, Gurcharan Kaur, Gurbachan Kaur, Harbans Kaur, etc. Among the uneducated women, the popular names are Jawali, Dhanti, Bachinti, Jasso, Harnami, Lachhi, Preeto, Basanti, Ganeshi, Bisheni, Chinti, Santo, Diali, Nihali, Karmo, etc.

Sainis. The Sainis are both Hindus and Sikhs. They are mostly found in Jullundur, Hoshiarpur, Fatehgarh, and Rupar and Kharar tehsils of Ambala. According to their own account, they were originally Malis (gardeners) and lived in Mathura district of U.P. They appear to have migrated to the Punjab at the time of the invasion of Mahmud Ghaznavi, and finding the land suitable for agriculture settled down there.

Sainis are excellent cultivators and well-known market gardeners. It is difficult to beat them in industry and ability. They do more and better vegetable cultivation than even the Arains, but have not given up ordinary farming either. They are a quiet, religious-minded tribe, humble and peace-loving.

Kambohs. The Kambohs are found in Amritsar, Ferozepur, and Jullundur districts. A majority of them who have settled in Ferozepur have come from Dipalpur and Pakpattan tehsils of Montgomery district in the West Punjab. About one-fourth came from Chunian and Kasur tehsils of Lahore district; a few thousand are the old residents of Amritsar district who had gone to Lyallpur district.

The Kambohs claim their origin from Kamboj Desh in Afghanistan where the Kamboh community (Muslims) is still found among the Pathans. The capital of Kamboj Desh was Ghazni. They came into India in the Mahabharata period to take part in the Great War on the side of Kauravas, and then settled down in India. To begin with, their concentration was along the banks of the Ghaggar and in the Doaba lying between the Sutlej and the Beas. They are mostly fair-coloured and have good features. This can be regarded as evidence of their descent from the purer Aryan stock. By religion Kambohs are Muslims, Hindus and Sikhs. Of their present population, those who hail from Montgomery are Hindus, and the rest mostly Sikhs. Agriculture is their sole occupation. For sheer tenacity and persistence they can hardly be beaten by any other tribe. They are a quiet, meek and industrious community. It is on account of their peace-loving qualities that they are preferred as tenants or colonists. They possess gregarious

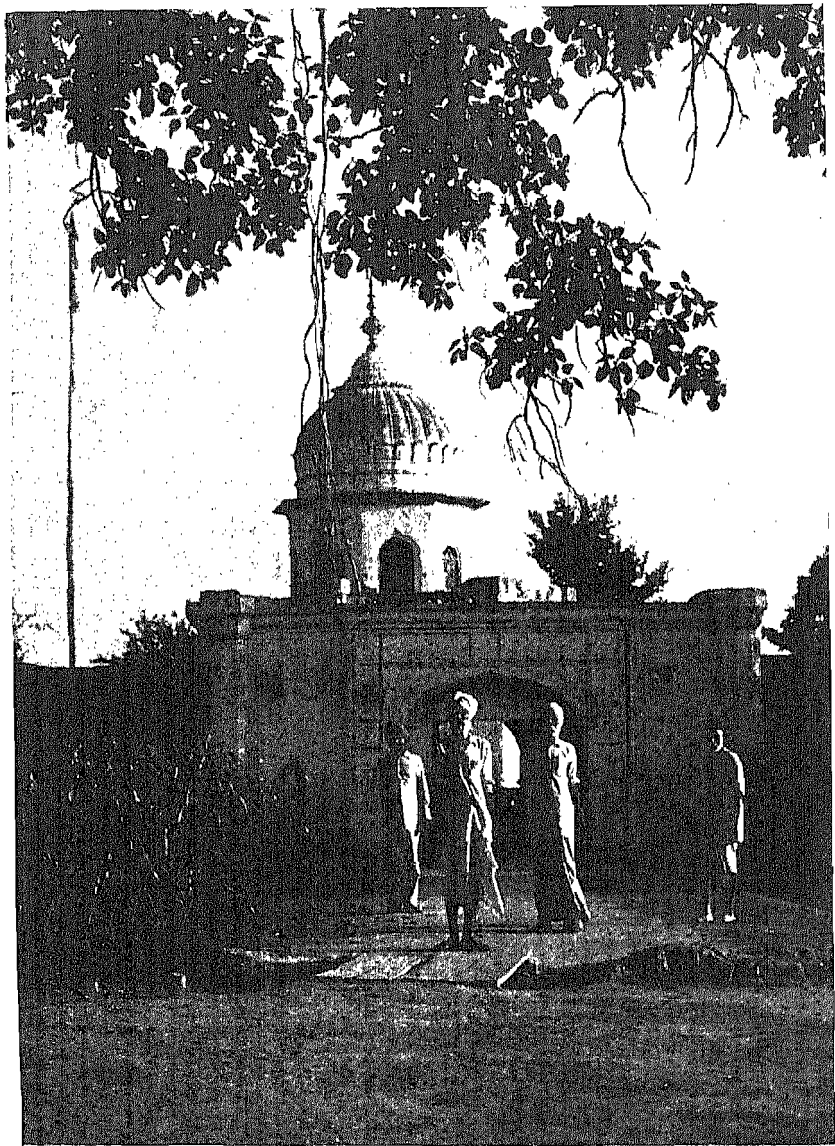


FIG. 41. A *Gurudwara* or Sikh temple is a common feature of most villages in the Punjab plains

greatly improved the productive power of the soil ; and even now the Arora, is better than the ordinary landlord, not only in Multan but also in the adjoining districts of Dera Ghazi Khan, Muzaffargarh and Jhang. In all three, he is the only progressive influence in an otherwise stagnant neighbourhood. If, for instance, a well has a covering of thatch to protect the ever-circling bullocks from the sun, if mango trees line the water-courses, or if capital has been sunk in the land, it is almost certain to be due to his energy. Though he seldom ploughs himself, he supervises his labourers minutely, and rarely gives his land out to be wasted by tenants. Half the sugarcane of the district is in his hands, and he is responsible for the only tubewell that has been sunk. Further north, in Mianwali, it was an Arora who introduced gram into the Thal, to the great advantage of the tract, and it is an Arora who is manager of the experimental farm at Lyallpur and also at Rawalpindi. In more than one district the most progressive landlord is a non-agriculturist, and in the canal colonies, though he may be as much an absentee as the zamindar, he looks after his land as he would after any other kind of investment, and occasionally attempts to develop it. This a member of the landed gentry rarely tries to do ; and in the western Punjab (as in Sicily) instead of improving it, he is more likely to mortgage it in order to purchase more ”.

FOOD

The morning meal of an average villager consists of stale wheat bread, *dahi* (curd) and *lassi* (buttermilk). At noon time he takes freshly baked wheat *chapāties* with onions and mango pickles. In the evening, he consumes more wheat *chapāties* with *dal* or pulses such as moong, *urd*, or gram. During winter, in the districts of Doaba, the favourite food is maize *chapāties* with *sāg* of mustard leaves. Milk and milk products are consumed in abundance. Liberal use of fermented milk drinks like *lassi* explains the comparative longevity of the farmers in these areas.

The landless labourers in the Malwa and Pothohar substitute *jowār* or barley for wheat. Meat and vegetables are considered a luxury and are taken only on special occasions. Boiled rice with sugar is served on ceremonial occasions and to guests. The use of vegetables, particularly tomatoes, potatoes, carrots and radishes, is also becoming more popular. Water melons and musk melons, are consumed with great relish in the hot months, and mangoes during the rains.

DRESS

The ordinary dress of the Sikh farmer consists of a shirt of home-spun khaddar and a *kachhi* or drawers made of the same material. He usually wears a *tehmat* of long cloth which may be dyed blue or red according to the taste of the wearer. The Sikhs cover the head with a turban usually dyed blue, yellow or red. In the cold months, the shoulders are covered

instinct, and help each other more than any other community. As a Punjabi proverb goes: "The Crow, the *kirar* and Kamboh help their progeny, while the Jat, the buffalo and the crocodile destroy them". Because of lack of education, very few of them have risen to eminence.

Kambohs were originally vegetarian, but now the men have taken to meat-eating. They smoke very little, and only the Sikh Kambohs use alcohol. Inter-marriages between the Hindu and Sikh Kambohs are allowed, but none outside the community. There are two main classes of Kambohs, the Bawan Goti and the Chaurasi Goti. Inter-marriages between the two classes have recently been allowed by popular opinion. Widow remarriage is practised to a limited extent, and that too is a recent development. Exchange of daughters in marriage is an accepted custom though it is responsible for many early marriages and ruinous quarrels.

Kambohs are by nature thrifty, and saving is a hobby with them. They invest in ornaments and good animals, and keep their cash buried in their houses. They are inclined to over-spend on marriages, but because of otherwise economical living they incur few debts. Being mostly landless or small proprietors of land, communism makes a strong appeal to them. The recent tendency of the bigger land-owners to cultivate their holdings directly has hit the landless Kambohs hard.

Non-cultivating Agriculturists. The non-cultivating classes of the landowners in the Punjab are significantly different from those of the cultivators. The origin of their rights and interest in land is radically different from that of the self-cultivators. Whereas the ownership of the cultivators has existed since time immemorial, and has been descending from father to son, the proprietary rights of the non-cultivators generally date from the Sikh and British rule. For instance, the Khatri and Aroras in Montgomery district acquired a foothold there in the latter half of the 18th century when the Nakai Sikh Sardars were establishing some sort of order there. In Gujranwala, the ownership of the Khatri generally dates from the British rule, though in Hafizabad tehsil most of their estates were gifts from Dewan Sawan Mal, the Multan governor of the Sikhs. Before the passing of the Punjab Alienation of Land Act in 1901 there was no restriction on a non-agriculturist buying the land of an agriculturist. As a rule, money used to be lent on the security of land, which was later bought up by advancing more money. Sometimes the non-agriculturists acquired proprietary rights by agreeing to pay land revenue when the Jat owners defaulted.

Although the non-agriculturists did not cultivate their lands with their own hands, they took keen interest in their development and, as such, have been a useful factor in agriculture. As Darling says: "In at least one part of the province, the south-west, agriculture owes much to the townman. As long ago as 1859, the comparative prosperity of Multan was due mainly to the efforts of the non-agriculturist Arora, who by his labour and capital



FIG. 42. A Nihang Sikh from Ferozepur

with a *khes*, also home spun. Use of woollen pull-overs or sweaters is also now becoming common. The literate among the villagers usually wear pyjamas, and the more progressive among them have also started using western clothes like flannel trousers and coats. Women wear a shirt of plain or patterned material extending below their knees, and a *salwār*. They cover their heads with a muslin *dupattā* which is coloured in the case of married women, and is plain in the case of widows. During winter, in the districts of Malwa, the women wear embroidered *phulkāries*. These are, however, going out of use. The use of cheap cosmetics and soap is also becoming popular. Heavy ornaments of gold and silver used to be worn in the past, but now these are being discarded.

VILLAGES

Majha Villages. On entering a Majha village one finds the front doors of the houses opening on the main streets or the side lanes running off them. Ordinarily the entrance leads straight into an open courtyard which has a trough along one or more of its sides for the cattle. The living rooms will generally be found along one of the sides of the courtyard. These are long and narrow, with or without a small verandah in front, and are generally provided with a flight of steps or a wooden ladder giving access to the roof. There are few windows; light and air are admitted from the door, and smoke finds its way out in the same way, or through a hole in the roof. But cooking is carried on for the most part in a corner in the yard in a partly roofed shelter which is usually made of clay and is ornamented with folk designs. The people live as much as they can in the open air, and are only driven indoors by cold or rain. A noticeable object in every house is the *bharoli*, a large jar-shaped receptacle for the grain of the household made of plastered mud with a stoppered hole through which the grain runs out when required. Each family living within the enclosure has a separate dwelling house and cooking place, while, in the yard, outside the doors, much of the available space is taken up by the bedsteads and waterpots of the households and women spinning wheels. The roof is used for storing heaps of *jowar* fodder and bundles of cotton twigs for roofing purposes, as also for drying in the sun chillies, maize cobs and seed grain. Some houses have a small upper chamber on the roof called *chāubara*. Sometimes the front door, instead of leading directly into the yard, takes one into the *deorhi* which again has a smaller door so placed that the interior of the yard cannot be seen from the street. The *deorhi* will only be found in the houses of well-to-do zamindars, or in houses which have been built outside the village. It is used for stalling cattle, storing fodder, ploughs, yokes and other implements, or as a guest house. If the owner is well off, the outer gate of the *deorhi* may be set off with a cornice of carved wood or even a front of masonry. But the *deorhi* is not so common in the districts of Amritsar, Gurdaspur, Jullundur, Hoshiarpur and Ludhiana as in those parts of the province



FIG. 44. Winnowing grain with the help of hand rakes



FIG. 43. A minstrel of Gurdaspur with his *Chimla*, singing a folk-song



FIG. 46. A young Sikh Jat of Ferozepur



FIG. 45. Young Punjabi farmers under training as Village Level Workers



FIG. 48. A well arranged kitchen in a Punjabi farmer's home



FIG. 47. It is not unusual for a sturdy village woman to carry several pitchers balanced gracefully on her head

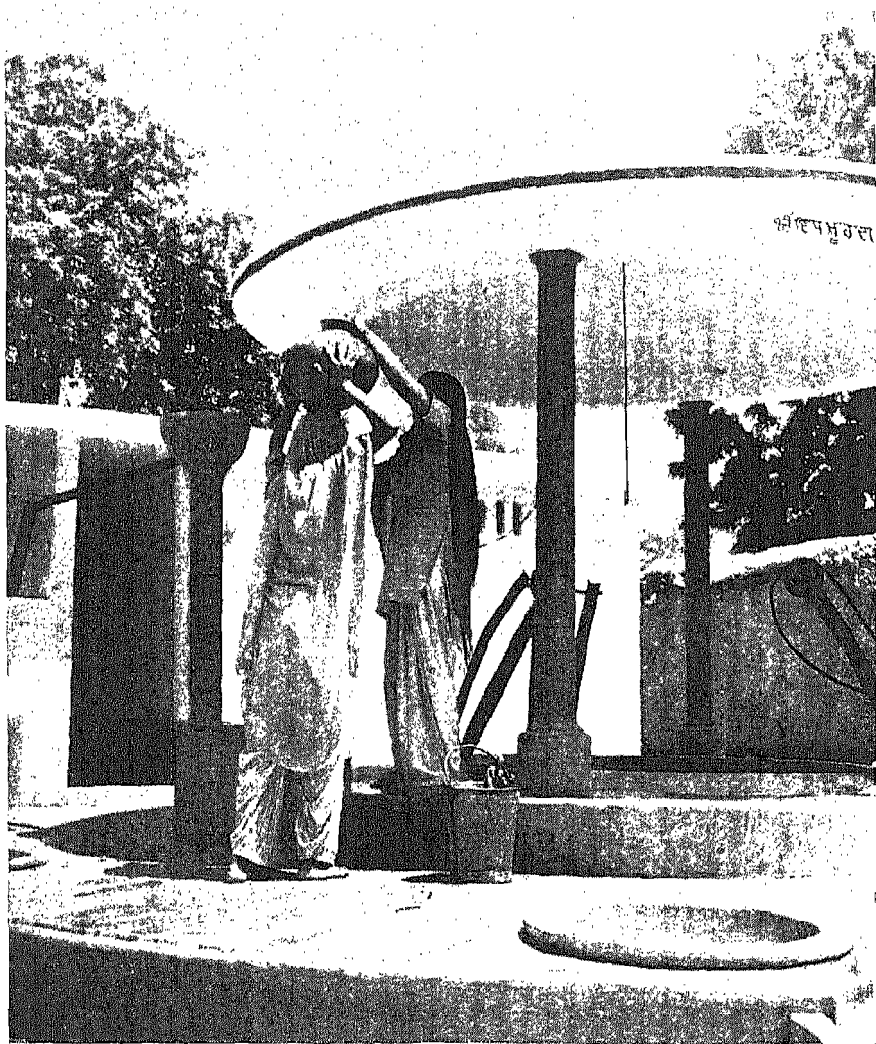


FIG. 51. Pacca sanitary wells are found in most villages in the Punjab



FIG. 49. A Sikh Jat farmer of Amritsar



FIG. 50. A gathering of farmers in Kharar near Chandigarh

where land is of less value, and where the villages are more roomily laid out. Economy of space is very important in these thickly populated districts, and the farmers will put up with any amount of inconvenience in the matter of housing accommodation rather than sacrifice a part of their cultivated fields to build better houses. Some are forced to build separate houses at the wells, but this is a last resort, and there is not the tendency found in other parts of the province to scatter into detached hamlets, and leave the parent site. This is explained by the law and order situation, as violent crimes and thefts are common.

Village artisans, as a rule, live within the village in smaller houses, built on land given to them by the owner under whose protection they originally settled in the village. Carpenters are often better housed, usually at the outskirts of the village. They are economically the most affluent among the village artisans. Leather-workers and others engaged in similar trades have separate localities outside the village.

Malwa Villages. The peculiarity of the villages in the Malwa tract lies in the houses having large entrance gates. This is explained by the fact that laden camels are taken inside. At night time these heavy gates are securely locked as thefts and dacoities are not uncommon. The villages are generally large. A typical village consists of a collection of houses of sun-dried bricks with a few *paccā* houses belonging to the wealthier inhabitants. It is divided by narrow and tortuous lanes though in the western areas where land is cheaper the villages are much more open and straggling. The village generally has one or two ponds (*chappar*), which supply mud for repairs to the houses and are used for watering the cattle and for washing purposes. It is generally surrounded by a circular road (*phirmi*) often encroached upon. Around the village are usually to be seen a number of brushwood enclosures which are known as *wārās*, where stacks of cowdung fuel and heaps of manure are kept.

The village houses are mostly of adobe, though the number of brick or *paccā* houses is also fairly large, particularly in the canal-irrigated areas. The brick house is considered a sign of prosperity, and most of the bigger landholders live in substantial *paccā* houses. Aerials of radios 'run on motor batteries' can also be seen on house-tops in some of the villages.

The common dwellings are built of rough lumps of dry earth, and joined together and plastered over with mud. The roofs are of mud laid over with beams and joints of roughly hewn timber. The walls are 14 feet or more in height, and there are sometimes small upper chambers on the roof. The house is entered by a gateway, generally large enough to admit a loaded cart and often built of brick, even when the rest of the building is of mud. This leads into a large apartment, which serves as lodging for such guests as are not sufficiently intimate with the family to be taken into the interior of the house. This lodge is called the *deorhi*, and is usually *paccā*. Its length is equal to the full width of the house, and the depth about 12 feet. On



FIG. 52. At the spinning wheel

of streets with bricks and provision of drains have become a common feature. Cattle are kept separately in sheds known as *havelis* which are usually planted with mulberry trees for shade. With the consolidation of holdings, there is a tendency among the farmers to live on their fields along with their cattle, at least during the day time. As a result of this, environmental sanitation has improved and the entire cattle dung and urine go to fertilize the fields.

Life in Punjab Villages. While the social life of the villages centres largely round the gurdwara, temple and dharamsala, the well, the *bhatti* for parching grains and the village shop have their own importance. When the housewives are free from their domestic duties in the morning, they go to the well carrying pitchers and copper vessels for fetching water. The idlers and young gallants usually take their position on logs of wood which are scattered around these wells and amuse themselves staring at them. In the evening, boys and girls go with maize or gram to the *bhattis* or parching kilns which are maintained by the *jhiwars*, a caste which draws water. Parched grains are a favourite food of the villagers. The *bhatti*, is a busy and lively place in the evening, the sound of the parching grains mixing pleasantly with the chirping of the children. After sunset the people gather for gossip on the platform below the village shop usually maintained by Brahmins or the trading classes.

In the morning, apart from the crowing of cocks, one of the familiar sounds heard is that of the grinding mill. While the plough-men leave for their fields with the bells of their bullocks tinkling merrily at about 4 a.m., the sound of the mill keeps them company a long way. Before the sun is too strong, i.e. till about 10 a.m., most of the ploughing work is completed, and the womenfolk bring them the morning meal, consisting mostly of stale wheat *chapāties*, mango pickles and buttermilk or *lassi* with which generous quantities of salt are taken. At about 9 a.m., the streets are full of boys and girls going to school. At about noon time, the farmers water their cattle from the well, and after that there is quiet and silence for many hours.

People have their meals usually by sunset, and most of them are fast asleep by about 9 p.m. Old men who are unfit for hard manual labour, spend their time during the winter months, removing fibre from *sann* and warming their limbs by burning the pith which they remove from the stalks.

The harvest season starts with the celebration of Baisakhi when the wheat crop is golden yellow. The months of April, May and June are a busy period for the farmers as the harvest of wheat and its thrashing and winnowing keeps them fully engaged. In the month of June when the wheat crop is gathered, a good deal of feasting goes on. The families invite each other in rotation for meals. The host collects milk and *lassi* from other families, and from these milk rice pudding, and curd preparations are made. However, with the growth of individualism, the present custom of *naindā* or mutual feasting is now dying out.

the farther side of the *deohri*, but not exactly opposite the outer gateway, is a smaller door. This leads into a open courtyard called *valgan*, round which are huts and cattle stalls. There will be a large hut of one or two rooms, a cattle stand, and a cooking place for each branch of the family. The huts sometimes have a verandah in front of them. They are not generally very large inside, and are cumbered with all sorts of household stuff. Being lighted only from the doorway, they are not very inviting places except as a refuge from bad weather. The people prefer to do most of their work in the open yard. Even the cooking, except during rain, is done in a partly enclosed and sheltered corner of the yard called *sābat*. In the yard, and also inside the huts are large barrel-shaped receptacles for grain, called *bharolās*, made of tenacious mud dried in layers. The huts contain bins and cupboards of the same material, called *bukhāri* in which are stored clothing, vessels, and the like. Cattle fodder is heaped on the roof or stowed in chambers in the huts. Excess fodder is stored in enclosures (*wārās*) outside the village, or stacked in the fields. At night, in the cold weather, as many of the cattle as possible are housed in the huts or the *deorhi*. The furniture consists of light bedsteads (*manji*) which serve as seats and also as a table when wanted, a few stools or *peerhis* made of reeds or *newār*, a spinning wheel for each woman and girl in the family, and the cooking and dairy utensils. The cooking vessels are of brass, and these are neatly arranged in rows along the wall, on racks.

Doaba Villages. The villages of Jullundur district usually look prosperous and are nearly all *paccā*. The entrance to a village is usually by a gateway or *darwājā* sometimes provided with a door, roofed-in and with a raised platform on each side. Travellers put up in these gateways, and in the wet weather the villagers assemble and gossip here. Brick gateways are common. It is a point of honour for the village to rebuild, as soon as possible, the *darwājā* if it comes down. It is usually crossed by a rope to which are attached charms to protect the cattle which pass under it against disease.

A common feature of the Sikh villages is the presence of a gurdwara or a dharamsala. It has a peculiar architecture which combines the dome of a mosque with the straight lines of Hindu temple. The gurdwara is a conspicuous feature of the rural landscape. On the first day of each month, the festival of *Sangrānd* is celebrated when the entire village community, men, women and children, congregate and take part in the singing of hymns. In some of the gurdwaras instruction is also imparted to children in *gurmukhi* script. The gurdwara serves as a community centre, and libraries and dispensaries are also now being added to their buildings.

A number of people in the Doāba have taken employment outside their native villages, and with their income from service or business have been able to build *paccā* houses and also to make improvements in their lands by constructing wells and tubewells. Lately, under the impetus provided by the Community Projects and National Extension Service schemes, paving



FIG. 53. A close-up of a lane in a Gurgaon village

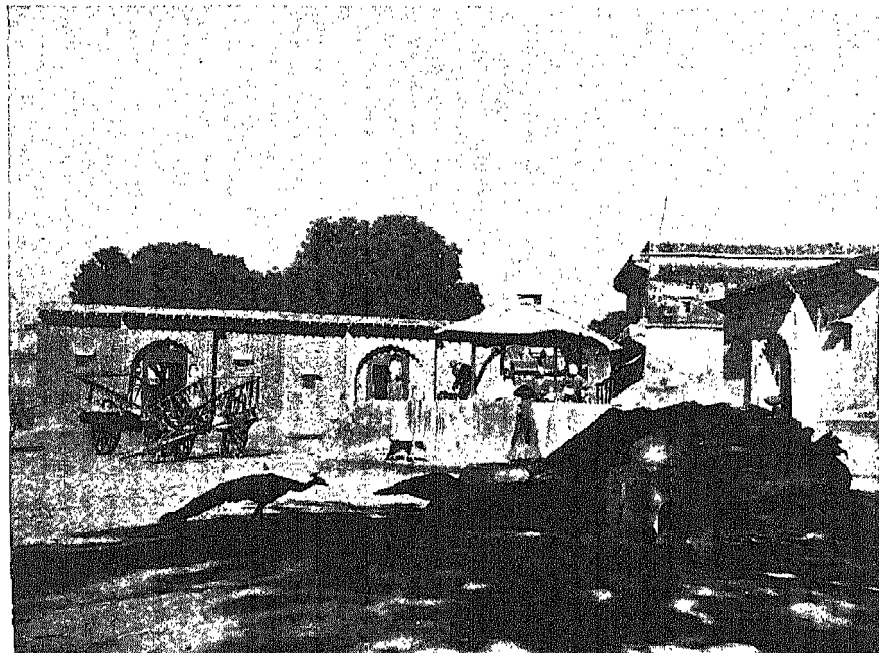


FIG. 54. A usual sight met with on approaching a Hariana village. Note the peacocks and a pariah dog

CHAPTER XIII

FARMERS OF HARIANA

THE agricultural population in the southern region of Haryana consists mostly of Hindu Jats, Ahirs, Rors, Brahmins, Rajputs, Bishnois, Gujjars, Malis and Meos (a Mohammedan tribe). The Jats predominate in the districts of Rohtak, Hissar, Mohindergarh and some parts of Gurgaon. The Ahirs are found mainly in Rewari tehsil of Gurgaon and Jhajjar tehsil of Rohtak; the Rors in Karnal; the Brahmin cultivators in Rohtak; the Rajputs in Rohtak, Hissar, Gurgaon, Narnaul and Mohindergarh; the Bishnois in Hissar; the Gujjars in Gurgaon, Karnal and Rohtak; and the Meos in Gurgaon.

After the partition of the Punjab a number of communities from the West Punjab have also settled in the Haryana area. The Aroras, Khattris and Kambos have settled in Rohtak, Gurgaon and Hissar, and the Virks in Karnal district.

Jats. The Jats are a straightforward people, and are very industrious cultivators. The Ahirs are shrewd and good agriculturists. The Rors are like the Jats but are not so industrious. The Brahmins as cultivators are not as good as the Jats and the Ahirs. The Gujjars mostly keep cattle. The Rajputs are indifferent farmers, generally preferring to let out their lands instead of tilling these themselves. The Malis are hard working cultivators and specialize in intensive cultivation.

It is the Hindu Jats who form the bulk of the population of the agricultural communities in the Haryana region and who lend a peculiar character to the rural areas. They comprise 13 major clans or *gots*, namely, Malik, Hudah, Dalal, Ahlawat, Rathi, Golia, Jakhar, Dahiya, Deswal, Dhankar, Sahrawat and Kadian.

Discussing the origin of the Jats, Mr. Joseph, Settlement Officer, writes in the District Gazetteer of Rohtak: "On the question of the nationality of the Jats I have no intention of entering at length, as I have nothing new to offer for consideration in the controversy. The distinction of Pachhade and Deswal Jats is quite unknown in Rohtak, though said to be acknowledged in Hissar; the term *pāl* for clan is also unknown. The Jats may be Aryans, as they themselves would maintain, or Turanians as General Cunningham believes; but if they are the Zaths, they had, in many cases at least, settled in Rohtak before the destruction of Somnath by Mahmud the Iconoclast. They themselves claim to be of Rajput origin, and the offspring of irregular Rajput marriages (*karewā*), and maintain that their Rajput ancestors came from Malwa, Bikaner and Dharnagar, which lay to the east near the ancient Hastinapur. None of the clans have, or at any

rate will admit having, any traditions of their having come from the north-west. The Malik Jats, indeed, do profess to have come from Garh Ghazni, but they maintain stoutly that this was in the Deccan — that delightful geographical generality, — and Sir Henry Elliot would seem to have laid too much stress perhaps on this isolated name in his treatment of the Jats in his Glossary. However, in spite of their uniform and persistent statements on the subject, it seems impossible, in the light of modern information, to accept their traditions as true. Sir George Campbell has pointed out that it is *prima facie* contrary to our experience over the whole world that a great race should have sprung from such an origin as that claimed by the Jats. There is not the least doubt that the Jats of the south Punjab and Rajputana are the same people as the Jats of the higher districts of the former province. And when we find that this people stretches in a fan-like shape from the country lying in front of the Bolan Pass to the Salt Range and the river Jhelum on the north, to the mountains and river Jamuna in the east, and as far down as the Aravalli hills to the south (for North Rajputana is 'ethnologically much more a Jat than Rajput country'), it seems impossible to believe otherwise than that the Jats entered India as a people from the west, and were brought up against the settlement of the earlier Rajput colonies, if at least we are to give any weight at all to the fact of the local distribution of the people. For my part I would venture to believe with Sir G. Campbell that the Rajputs and Jats were once congeners of a common stock, that they both entered India by the same route, that the Rajputs formed an early immigration, advancing further and becoming therefore more completely Hinduised and that the Jats followed long afterwards behind them."

The Jats are generally of very fine physique, and the younger women often comely. They make brave, but not particularly intelligent, soldiers. For patient industry and endurance as agriculturists they have few equals. They are generally clannish and keep alive the memories of ancient feuds. It is a common saying in certain villages that they still preserve their neighbours' shoes with which they beat them in the lawless days of 1857. They are shrewd, and love a joke when they master it. Their proverbs are full of wisdom, often at their own expense, for example, "Soil, fodder, clothes, hemp, *munj*, and silk, these six are best pounded, seventhly the jat."

If a woman at all can be called a treasure by her husband it is the Jat woman. She is her husband's help-mate and does every kind of field labour except driving the plough or the cart and working the well. On the top of it she is a capable housewife. It is noteworthy that many of the Jats' proverbs take the form of a conversation between the man and his wife. To her importance the following proverb bears witness: "Red rice, a buffalo's milk, a thrifty woman at home, and a horse to ride, these are heaven's four marks; bad bread, a goat to milk, a shrew in the house, and dirty clothes, these are the four signs of hell." She cooks food, manages the household affairs, carries feed for the menfolk working in the fields, and

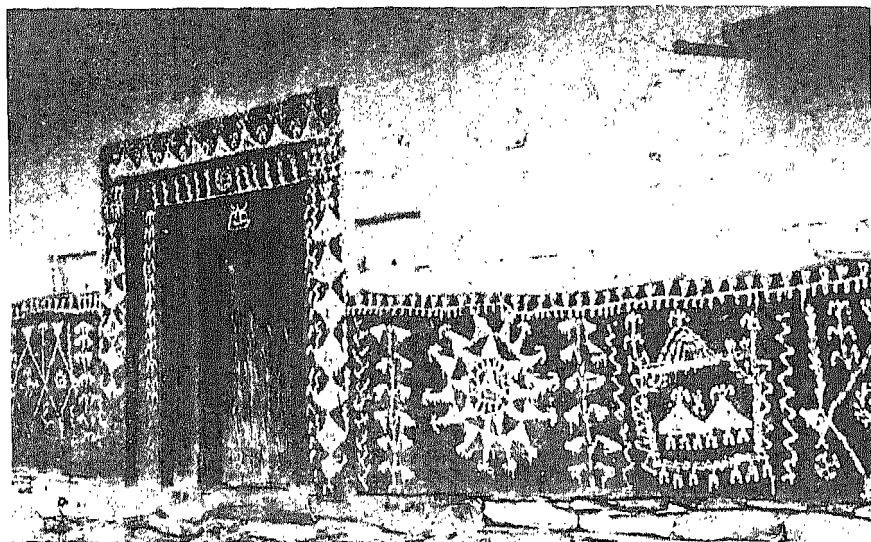


FIG. 55. Haryana villagers are fond of decorating the outside of their mud houses with folk motifs



FIG. 56. Frescoes in gay colours in a village guest house in Rohtak

reputation. Like the Jats they practice widow marriage. Their women may always be known by their blue petticoats, and red *orhnās* worked on the hem in white. The proverb, *Bāwan bangle kosli aur banke kai hazār* — “Kosli has 50 stone houses and several thousand swaggerers,” shows that the surrounding Jats are somewhat jealous of them.

Brahmans. The Brahman villages, are generally separated from some adjoining Jat or other estates. It was an invariable habit for Jat settlers to bring Brahmans with them, and in many cases, therefore, their residence is as ancient as that of the former. In appearance also they look like the Jats to an outsider, have coarse features and are heavily built. The Brahmans of the whole countryside are said to belong to the great Gaur subdivision of the race. Sir George Campbell has conjectured that they are, perhaps, not a branch of the Gaur tribe of Bengal, but that their name may have been derived from their residence on the Ghaggar. The commonest clans are the Vashisth, Gaur, the Mihrwal, Dabra, Bharadawaj and Koshish.

The Brahmans are inferior to the Jats as cultivators; though they have abandoned the strict rule that requires them to eat their food where it is cooked, their women give little or no assistance in the fields beyond bringing their meals. They are often *prohitis* as well as cultivators.

Bishnois. The Bishnoi is an admirable cultivator, shrewd, intelligent, thrifty and prudent, keen in the pursuit of his own wealth and advancement. Their womenfolk are robust and comely. Badopal, a village in Hissar district is so well-known for the beauty of its Bishnoi women that it is called the Paris of Hissar. How far the comparison with the womenfolk of France may be justified is a debatable point, but there can be no doubt that Badopal is full of beautiful well-built and cheerful lasses, of whom any countryside can be proud of. The menfolk are quarrelsome and litigious, and it is rare to find a Bishnoi village in which there are not deadly internal feuds.

The Bishnois are the followers of a particular form of Hinduism, the leading feature of which is the worship of Vishnu incarnated as Jhambaji. They are not a distinct tribe, but are made up of Jats, Khattris, Rajputs and Baniyas, but they always try to sink their tribe in their religion, and give their caste as Bishnoi merely. They retain the language, dress and other characteristics of the Bagris. They abstain entirely from meat, and are particularly careful of taking animal life in any form. They are forbidden the use of tobacco, and on the first and fifteenth day of each month no spinning or ploughing is allowed. Unlike other Hindus they cut off the *choti* and shave the whole head. Instead of burning their dead, the Bishnois bury them in ground on which cows are wont to stand; the place generally selected is the cattle yard, or sometimes even the actual entrance (*deorhi*) of the house.

Was this custom a diplomatic device to escape the Muslim persecution or has climate anything to do with it? Bishnoi-ism like Islam is a religion of the desert. Firewood is scarce in the desert though there is no lack of

actively helps in agricultural operations. She makes embankments of the fields, follows the plough dropping seed during the sowing season, manages the *nakkas* of water channels, and carries heavy loads of fodder crops on her head. Apart from being a help-mate in farming, she is also the keeper of her husband's conscience. Men are mostly heterodox and seldom observe religious customs, and leave prayers and fasts to the women.

In Hissar the Hindu Jats are divided into two broad classes—the Deswali Jats of Hariana or the Des country, a tract which extends roughly over the eastern half of the four southern tehsils of the district, and the Bagri Jats who are immigrants from the Bagar country of Bikaner.

The Bagri Jat, though a thrifty and industrious agriculturist, is of slighter physique and duller intellect than the Deswali. This difference is not a racial one, but due probably to the harder conditions of life which prevail in the *Bāgar*. The Deswali Jat, on the other hand, is a lusty specimen of humanity, a thrifty and excellent agriculturist, and far superior in every thing, except, perhaps, social rank, to the other agricultural tribes.

The Jat, whether Bagri or Deswali is, as a rule, well conducted and peaceably disposed; crimes of violence are rare, and those that are perpetrated are generally the result of a sudden quarrel, and committed without premeditation. Jat is, of course, unsurpassed in the pursuit of agriculture, and his chief desire is to be let alone in the enjoyment of the fruits of his toilsome industry, though he is not above a little judicious in money-lending especially among the members of his own tribe.

Rajputs. The Rajput retains, but not perhaps in undiminished vigour, the military instincts of his ancestors; beyond this not much can be said in his favour. He is generally a lazy and very inefficient agriculturist, very often up to the ears in debt, but withal extravagant and fond of litigation. He still retains his pride of birth, which leads him to look down on the far more worthy Jat, who is immeasurably his superior in industry under all kinds of circumstances. The Rajput, on the whole, compares unfavourably with the Hindu Jat. He is for the most part thriftless, extravagant and improvident. Pride in his real or fancied superiority of descent precludes him from healthy manual toil in the field, and shuts his women up in a more or less strict *parda*.

Ahirs. The history of the origin of the Ahirs is even more doubtful than that of the Jats; nor is any aid on the point to be found in their stronghold Rewari. There they profess to have come up from Mathura, but the Rohtak Ahirs claim to be descended from a great-grandson of Prithvi Raj, who adopted the practice of *karewa*. The Ahirs are superior even to the Jats in patient and skilful agriculture. Living as they do in the sandy part of Jhajjar in Rewari where the well runnels are so porous that they require to be plastered each time they are used, their resourcefulness has been more developed than that of the Jats. The common saying: *Kosli kā Ahir, kheti ki tadbir* — “The Ahir of Kosli, the craft of agriculture,” shows their

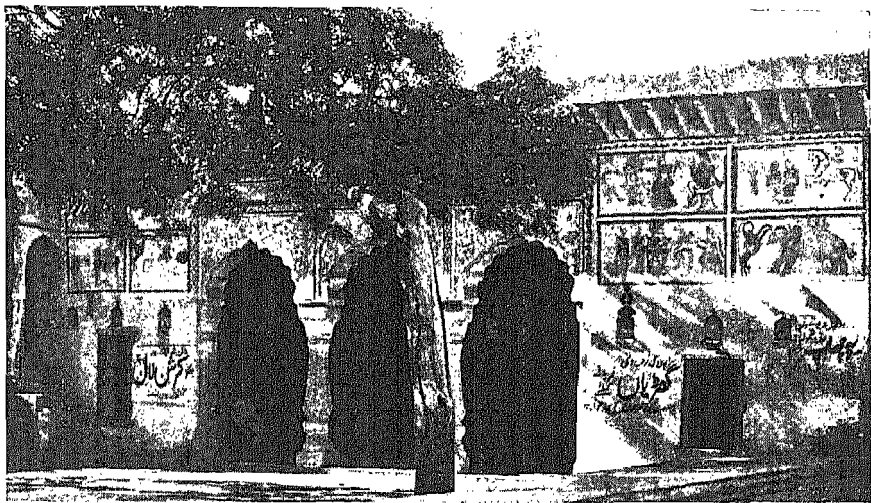


FIG. 57. A village guest house in a Rohtak village

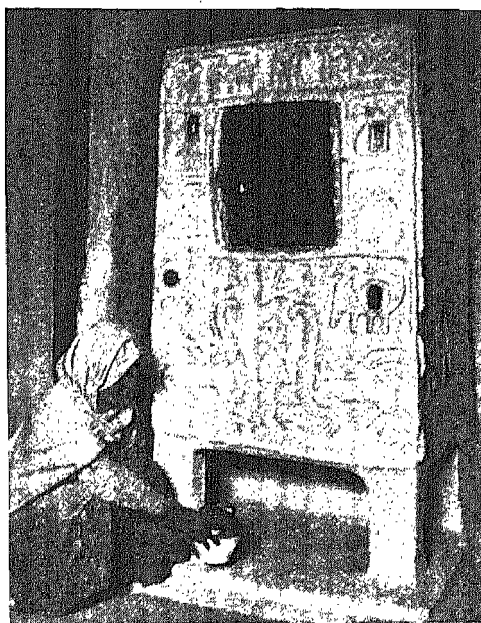


FIG. 58. *Bharholis* made of clay and beautifully decorated are found in most Haryana homes for storing grain

waste land. In such circumstances it is more economical to bury the corpse than to cremate it. On the other hand, Hinduism is a religion of the forest land where trees are abundant and cremation of a corpse is economical as well as hygienic.

The Bishnois are thrifty, frugal and industrious. Agriculture is by no means their only resource, and they are ever-ready to turn every chance of profit to advantage: the consequence is that they are probably in more comfortable circumstances than any other peasantry in Hissar.

Gujars. The Gujars have been identified by Cunningham with the Kushan or Luchi or Tochari tribe of eastern Tartars. This tribe entered India about a century before Christ and about the middle of the 5th century A.D. there was a Gujar kingdom in south-western Rajputana. Most of them are Hindus. They are generally of good physique. They seem to devote most of their energies to cattle keeping and are indifferent cultivators.

Meos. Meos are an important agricultural factor in Gurgaon district of Haryana.

Sir Herbert Risley in his book "The People of India" inclines to the belief that the Bhils are the aboriginal stock from whom the Meos are descended.

Any Meo will tell glibly enough that the tribe is divided into twelve *pals* and fifty-two *gots*; but no two enumerations of the *pals* correspond precisely; and the fifty-two *gots* include the *pals*, and are not, as would at first appear, in addition to them. The following enumerations of the *pals* is perhaps correct:—1 Balant, 2 Ratawat, 3 Darwal, 4 Landawat, 5 Chirklot, 6 Dimrot, 7 Dulot, 8 Nai, 9 Younglot, 10 Dahngal, 11 Singal, 12 Kalesa or Kalsakhi. Besides these there is a thirteenth *Palakhra* or little *pal* Pahat. The *pals* which are strongest in Gurgaon are the Dahngals in the north of Nuh; the Chirklots in the south-east of Nuh and in the country round Punahana; the Landawats, Dimrots and Dulots in the Ferozepore valley, and the Darwals in the country south of Nuh. These Meo sub-tribes still possess a strong feeling of unity and the power of corporate action.

The Meos have a gregarious instinct and are capable of united action as a community in an emergency. They are all simple people who are easily led, and in the inhospitable rain-fed areas of Nuh and Ferozepore tehsil in Gurgaon they are able to eke their living by sheer dint of hard work.

Artisan Classes. The primary occupation of the Chamars is leather work, but he does not tan; this is done by the Raigar and Khatik. In addition to his primary occupation, the Chamar weaves the common country cloth, performs field labour for the village, receiving as remuneration the skins of the cloven-hoofed cattle which die, and works as a permanent labourer in the *lanas* or agricultural partnerships, and also as a daily labourer at harvest time. He frequently cultivates land as a tenant. The Chamars are almost entirely Hindus. The Chuhra will eat the flesh of almost any animal, and receives the skins of animals with undivided hoofs, such as horses and camels. Dhanaks will not touch night-soil. They are



FIG. 60. A Haryana woman digging sugarcane crop



FIG. 59. A beautifully carved doorway in a Rohtak village

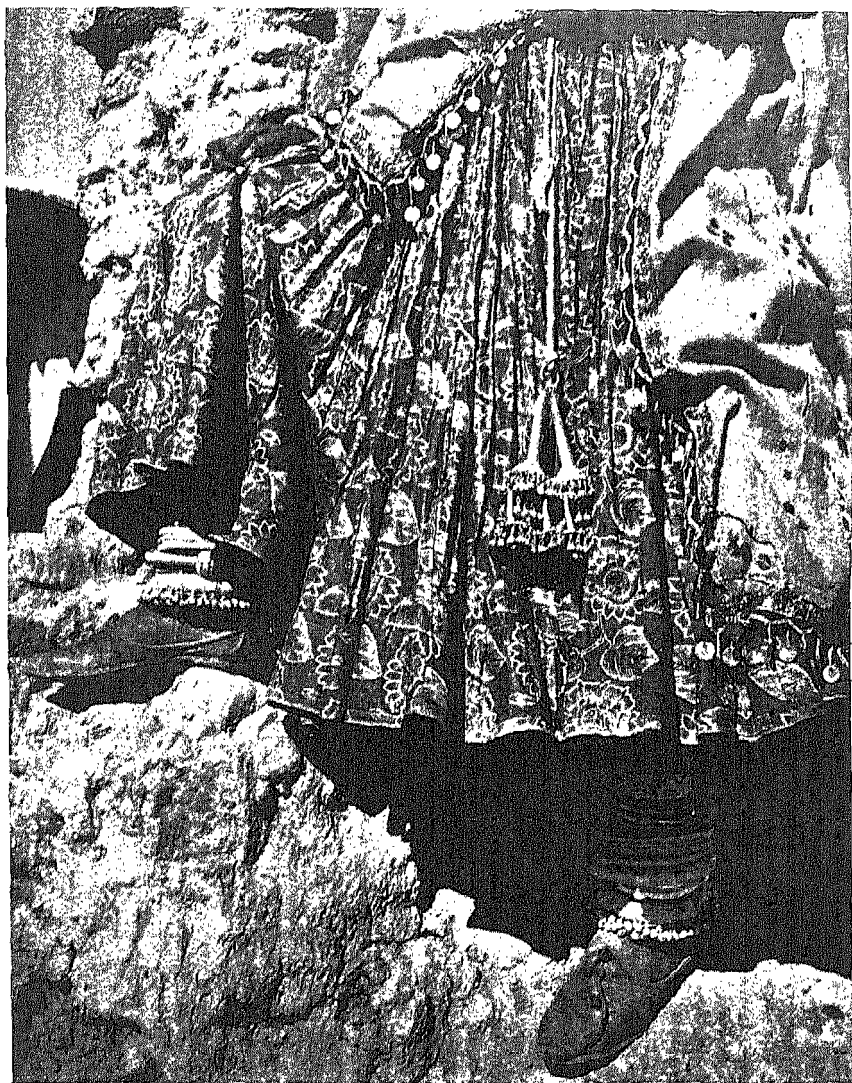


FIG. 62. The skirt and leg ornaments commonly worn by Haryana women



FIG. 61. A young woman of Haryana. Note the traditional jewellery worn by her

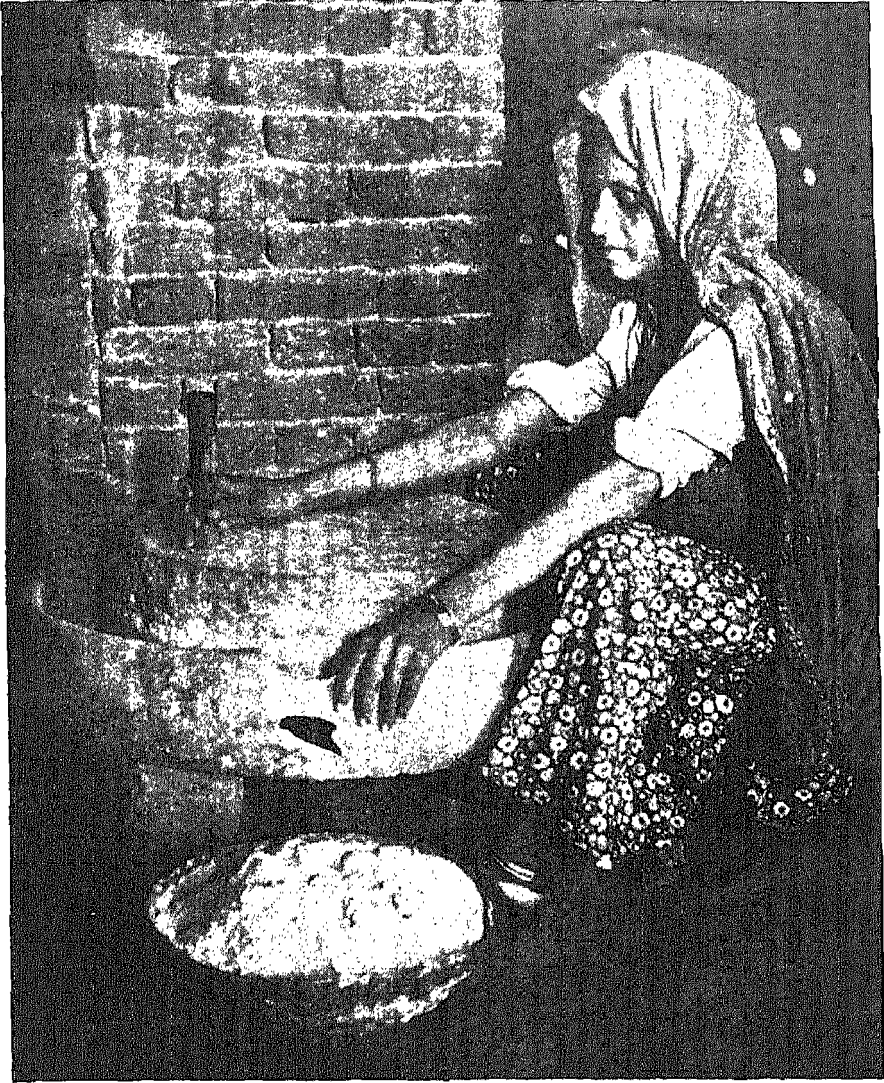


FIG. 64. Flour is generally ground in handmill by housewives in Haryana



FIG. 63. A Rohtak farmer winnowing grain

primarily scavengers, but in addition to this practice several other occupations. A considerable portion of the village weaving is done by them, and they are very frequently employed as village messengers. They also cultivate as tenants and work as field labourers.

The names of the farmers in the Haryana tract bear strong resemblance to the Hindu and Sikh names in the Punjabi speaking parts of the State. Names such as Booti Ram, Tulsi Ram, Harphool Singh, Jhandu, Gulab Singh, etc., are after the names of plants and flowers. Those like Rattan Singh, Lal Chand, Hira Lal are after the names of precious stones. Names such as Raghunath Singh, Lakshmi Chand, Jagdish Singh, Ram Singh, Ram Sarup, Hardeva, Hari Singh, Prabhu Dayal, Narain Singh, Ishwar Chand, Devi Shankar, Jai Kishan, Prahlad Singh, etc., are after the names of gods and deities. Ajit Singh, Raj Singh, Ranjit Singh, Balbir Singh, Balwant, Fateh Singh, Maharaj Singh, and similar other names derive from words associated with kingly and war-like qualities. Then there are such names as Anand Singh, Khushi Ram, Chain Sukh, Mauji Ram, Lahri Singh, and Mast Ram, which signify peace and happiness. Love of money finds expression through such names as Mohar Singh, Khazan Singh, Amir Chand, Daulat Ram, Lakhan Ram, etc. Dan Singh, Mange Ram, Chhotu Ram, etc., are names given by parents to children to ward off the evil eye or to secure the protection of gods. Basant Ram, Sawan Singh, Baisakhi Ram, etc., derive from the names of festivals, while names like Chet Ram, Maghar Singh, etc., are after the names of *Vikrami* months. As examples of names after vocations may be mentioned Telu Ram, Loharu Singh, Munshi Ram, Babu Singh, etc. The names of women are similarly derived from those of gods and goddesses, queens, flowers, rivers, etc. Some examples are Parmeshri, Hardei, Ram Dai, Sita, Padmani, Ambo, Gaindi, Champa, Malti, Jamuna, etc. The names of scheduled caste men and women do not differ much from those of the higher castes.

The life of the housewife is, on the whole, a hard one. She goes to the village well with the *gharā* on her head, draws water twice in the day, cooks the morning meal, and when the men are at work in the fields carries it out to them there; at the seasons for weeding and harvesting she does a considerable share of this work, and after going home has to cook the evening meal. In addition to this she has to collect the cowdung from the fields and make it into *opla*, and to spin the cotton.

Early in the morning and in the evening women can be seen carrying two to three pitchers on their heads from the village to the well near the pond-side, and from the well to the village. It is a remarkable feat of balance, and gives them that graceful gait and poise which the poets compare with that of the *hamsa* birds. Carrying of water is the main activity which goes on early in the morning and late in the evening in the village. When they go to the well they put on their best clothes, for the well is also the village club where gossip is exchanged. The married women observe



FIG. 65. Cattle are looked after very lovingly in Haryana villages

Men do not wear much jewellery except on festal occasions when gold necklaces and ear-rings are often seen; but a single *karā* round the right ankle only, small ear-rings called *murki*, and a plain necklace called *kanthi* are common.

After the partition of the Punjab a large number of displaced persons from West Pakistan have settled, bringing with them their traditions. The last ten years have witnessed a significant cultural fusion between the old and the new. Thus the *salwār* and *qamiz* are being increasingly adopted by the young girls who are studying in schools, and even some of the grown up women have started discarding their graceful *ghāgrī* in favour of the *salwār*. They have also started discarding their heavy silver ornaments. The tall and well-built Jat women appear very graceful in their *ghāgrīs* and their bright clothes lend charm and colour to the drab countryside. No doubt the *salwār* is a very useful and an economical garment but it is drab and far less romantic. The disappearance of the *ghāgrī* with its bright colours would be unfortunate indeed.

FOOD

The food of the people is simple and of little variety. Two or three meals a day, sometimes four, are eaten according to the seasons of the year and the work to be done. The morning meal, often taken to the fields by the housewife, consists of three or four loaves of *bajra* or wheat and the evening meal of *rabri* (gram or *jowar* allowed to ferment in buttermilk and then cooked). In winter a porridge (*khijri*) of *bajra* (millet) and *mung* (pulse) is eaten. Of the flours *bajra* is preferred, though *bejhar* (gram and barley mixed) and *jowar* are often used. Wheat flour is now being increasingly used, and is particularly offered to guests or when the Brahmans are fed in the time of *kanāgat*. Vegetables (*sāg*) and pulses are eaten with bread, and in its season a good deal of sugarcane is munched, a necessary protection against cold. Large quantities of milk and buttermilk are consumed daily, and salt and chillies are freely used. Melons, pumpkins and radishes are grown by *malis* and bartered in the villages for their weight in grain. Animal food and strong drinks are unknown except among a few of those who have served in the army.

VILLAGES

The size of a village is a rough barometer of the law and order situation in a district. The larger the village the more precariously maintained is the law and order in that district. In districts like Rohtak, Ferozepore and Amritsar the average size of a village is large, and incidence of violent issues are also high. This explains why people cluster together in large villages in these districts. On the other hand in the district of Kangra the people are mild, thefts and murders are few, and the rural population lives in small hamlets consisting of a few houses only. The practice of living on the farm

Pardah, and only the maidens go about with uncovered faces. Quite a few of them are good looking in their teens, but the drudgery of life tells upon them in a few years. Suicides among women are a common feature. Frequently cases occur in which women jump into wells with their children. Hard work on the part of the women also has a demoralising effect on men who can be seen smoking *huqqā* in front of their houses, or playing cards and gossiping in the village *chaupāl*. General reluctance on the part of the menfolk to encourage female education is partly explained by the fact that they apprehend that women will cease to work hard if they become literate. Girls schools are now cropping up, though not at the same pace as the schools for boys.

Socially the Jats are more advanced as compared with the other castes and their women do not have to live out their lives in perpetual widowhood on the death of their husbands. A Jat woman of marriageable age seldom remains a widow, and she is readily accepted as a wife by one of the brothers of the deceased husband. This type of marriage is called *karewā*.

CLOTHES AND ORNAMENTS

The dress of the people is simple, but its gradations are sufficient to reveal the status of the wearer. The men wear a loin cloth and vest (*kamri*) and a sheet (*chadar* — if double called *dohar*), a turban, and shoes (*patan*). The plain turban of younger men is called *pagri*, and the twisted one of the older persons *khandwa*. The highly coloured turbans of the young blood is *chira*. Malik Jats are fond of affecting a red *pagri* as a sign of their superiority. The better class of people often wear a long coat, and a *dopattā*, or shawl across the shoulders is convincing evidence of respectability. The women wear a petticoat or *ghagri*, a bodice or *kurti* before marriage and thereafter an *angi* to cover the breasts, and over the head an *orhnā* or sheet, often worked in crewels on one or both edges at home and studded with circular pieces of mirrors. These too are frequently decorated with bosses and fringes of silver. The Ahir woman may always be recognised by her blue shirt and red *orhnā*.

Amongst the Jats, married women, whose husbands are alive display a great deal of ornaments. Commonest among these are the silver bangle (*pachheli*), worn immediately above the glass bangles which the widow must break off her wrists, and the massive wristlet called *kangri*; the *bāju band*, or *bāju chauk*, *bāju phul*, *tad* (put on only after *maklāwā*), and a string of rupees called *bāju*, that decorate her shapely arm; the plain anklet *kari*, and the *bakri* going under the ankle; the *bujni* (studs) and the *danda* (big ornamental rings) worn in the ears; the large nose-ring called *nath* which is worn only after marriage; a variety of finger-rings, plain and ornamented, with different names to each; and the massive silver necklace (*hansla*) or the long hanging string of rupees (*jhalrā*). Even the arm holes of the *angi* may be decorated with silver.

threads hung out to dry and the pony of the barber will announce where he lives. The trader will be found cleaning cotton outside his shop, whose wall is adorned with texts and the red impressions of hand called *thapa*. The *thapa* is a sign of rejoicing, and signifies the birth of a male child in the houses to which it is affixed. Squatted inside amid grain bags, oil jars, and multifarious ledgers is the village trader. Outside the village walls, and often in a separate colony beyond the village ditch, the houses of the scheduled castes will be seen, those of the leather workers with high-smelling tanning vats, and skins full of curing matter hanging from the trees, and those of the *dhānaks* or weavers with the webs stretched in front of them, and the women and men going up and down, and twisting the threads or brushing them into regularity. The potter's house will also be found outside the walls. Pigs and chickens rush wildly about at the sight of the stranger, and dogs set up a hideous clamour. As you pass through the village groups of women and girls will be seen congregating near the entrance doors of the houses peeping at the strangers. An odd cart or burdened man will come up with a load of fodder; cattle stand round about the tanks and in the open space before the streets, and children roll in the dust and play village games like *gend gulli*, *bitti dandā* and *ankh michkār*. In the morning and evening, as men go forth to their work and return again the scene is very animated, but at noon the village seems almost deserted, except for the smoke of the fires on which the evening meals are simmering.

The village *paras* or *chaupal* is an institution of considerable importance in the life of Rohtak villagers. Usually it is a *paccā* building made of bricks or stone-faced with handsomely carved woodwork and it is situated in the heart of the village. A dozen sturdy charpoys are placed in the *paras* for the benefit of village guests. A fire of dung cakes keeps smouldering all the time and provides fuel for the *hugqa* smokers. Some of the *chaupals* are very attractive. Painted on their walls are crude figures of Krishna, Ram Chandra, sahibs and mem sahibs, tigers and horses, elephants and railway trains, and lately of national leaders like Mahatma Gandhi and Jawaharlal Nehru.

Among the well-to-do villages, especially in the canal irrigated areas, picturesque temples and *paccā ghats* leading to the tanks are to be seen. *Shiwālās* are raised by the pious among the trading class. Particularly fine specimens of this architecture, indigenous and dignified, are to be seen in Gopalpur, Kathura, Deghal and Beri. The tanks (called *johars*) form a special feature of the villages. Round the larger villages as many as seven or eight will be found, some set apart for steeping the sunn-hemp, some for the cattle, and some for human use, though often enough cattle and men bathe and drink promiscuously. Specially fine tanks are to be seen at Sampla, Kanhaur, Bainsi, Dighal, Bhawar, Rindhana, and Gohana. A curious custom prevails of setting up a stone near the edge of a tank which is called *johar ki bahu*, or the tank's wife. Apparently the genesis of this idea is that everything in nature should be mated.

is common. Similarly in the district of Jullundur where the people are comparatively law-abiding, the farmer lives during the day time on his farm, and also keeps his cattle there.

In the size of its villages, Rohtak district is exceptional, the average population of each being about 1,200, a figure not approached in any other district in the State. Villages are built usually on sites which stand high above the surrounding level. This is due to deliberate selection, or the site has risen in height because of the debris left by previous habitations. The village sites are surrounded by trees, such as *jal* and *jand*.

The houses in the villages of Jhajjar tehsil have thatched and sloping roofs. In the rest of the district the villages are of one special type, which deserves a full description. On approaching them it is seen that the roads, where they converge on the village or village *shāmlāt*, are flanked by embankments and thorns, in order to prevent the cattle, from breaking into the fields. Scraggy *pilu* trees surround the village on one or two sides, and on other sides the fields come up almost to the village abadi. Scattered about are the ponds (*johars*) into which rain water is collected for the cattle. Some fine *neem* and *peepal* trees will be found on the banks of a pond, and also one or two wells often handsomely finished with masonry parapets and cattle troughs. Wells are dug close to ponds, as percolation improves the taste of water which is otherwise saline in most places. At the outskirts of the village are the enclosures for fodder (*gatuwāre*) and fuel (*bitore*), strongly fenced with thorns, resounding in the morning with the chirping of women arranging the dried cakes of cattle-dung or preparing to carry them in baskets to the houses. A ditch almost always surrounds the village itself, and the outer walls of the dwellings are completely closed towards it, except round some open space, into which doors of the houses open. The roads leading to the village being cut off internally from the rest. The wooden doorways opening on to the streets are usually handsomely carved. Inside is the courtyard in which the cattle are stabled, and beyond this the room where the household lives. In many cases the door opens into this room itself. Through the gloom of the smoke, due to the meal which is cooking, it may be seen that substantial wooden pillars support the roof, and that throughout the room brass dishes and pots, spinning wheels, baskets, receptacles of grain, etc., are scattered about in comfortable confusion, while the subdued murmur of the grinding of the corn-mill is heard from some hidden recess. A ladder connects the roof with the ground through a trap-door. On the top of the house fodder is stored, cotton and grain are placed to dry, and in hot weather the family sleep there.

The house of the carpenter will be discovered by the logs of wood collected round it, and that of the blacksmith by the little furnace below the trees in front of it; the oilman may have a buffalo at work on the mill; the dyer's dwelling is recognisable by the skeins of bright coloured blue, red or yellow

area for the tank (*uprahan*). Attempts to encroach upon it by the owners of the adjoining fields are sternly resisted. The water-shed is often covered with trees, which are carefully preserved, and form a plantation.

The above is given the outline of a prosperous Jat village in the eastern, central, and south-eastern parts of the Hissar district. Towards the west and south-west the type deteriorates slightly, not so much as regards the buildings as the surroundings of the village. The trees around the *abadi* are less numerous, the tanks not so large, nor, in consequence of the greater proximity of light sandy soil, so deep. At the same time we miss the large handsome *chaupāls*, and masonry houses become less common. A distinctive feature of a village in these parts is the thick and high thorn fence around the village as a whole, with only one entrance, which is closed at night to guard against cattle thieves.

In the neighbourhood of Rajput villages, one finds elegant cenotaphs known as *chhatris* erected in the memory of deceased parents by the wealthy Rajput land-owners. *Paccā* tanks often costing large sums of money are constructed by the *Banias* who carry on trade in remote Nepal and Calcutta.

The question of water supply is one of pressing importance. Except in the immediate neighbourhood of the canals and the Ghaggar, the water-level in the wells is at a depth varying from over 100 to 60 or 70 feet, and well water is only drunk when the tanks or *johars* are dried up. The proper repair and excavation of the village tanks is a matter to which much attention is given. Many, if not most, villages have been built on low-lying sites in which the rain water from the surrounding higher lands naturally collects. As the village increases in size more mud bricks are required, the tank deepens, and some of the miscellaneous common income of the village generally the proceeds of the sale of the right to manufacture saltpetre and of fallen trees, is devoted to repairing and enlarging the tank. So long as the tank water holds out, men and cattle drink from it and both bathe in it promiscuously; but some of the better villages reserve one tank or partition off a part of a tank for drinking and bathing purposes, and no cattle are allowed to enter it or drink from it.

When the tanks dry up, which often happens long before the rains, the only resource left is the water in the wells which are in many parts few and far between; and in many of those which do exist the water is bitter and undrinkable. The majority of the wells used for drinking purposes are on the banks of the village ponds and the filtration of the tank water has the effect of keeping the well water sweet. In Sirsa an aperture is left in the side of the well cylinder which communicates with the tank; when the latter is full, its water is let into the well, and this helps to keep the well water sweet. Well water is seldom drunk anywhere while water, however filthy, is available in tanks; when the latter is exhausted, men are appointed to draw water for the village for winter; they receive fees.

The villages in Rohtak look bare and have very few trees. *Neem* which can flourish in saline soil is commonly grown. Another notable feature is the presence of a large number of substantial *paccā* houses. Before 1914 the houses of the farmers were usually *kacha* and it was the *paras* only which enjoyed the dignity of being *paccā*. A number of factors have contributed to the increase in the number of *paccā* houses. The extension of canal irrigation from the Western Jamuna Canal System has added to the wealth of the farmer. In the dry area of Jhajjar tehsil where living conditions are insecure, recruitment to the army has been heavy, particularly during the last two World Wars. A large number of military pensioners can be found in the villages, and there are a large number of families who can boast of having provided more than three recruits to the army. The desire of a soldier, who has seen better life in the army, on return to his village, is to provide himself with a *paccā* house. The high prices of agricultural commodities which have been prevailing since 1939 have also provided incentive to the farmers for building *paccā* houses. The peasant farmers of Rohtak who are frugal by nature have made good use of their savings. After providing themselves with *paccā* houses they turned their attention to their common needs. A number of the villages have gone in for the paving of streets, and now they are building schools with great zest.

Hissar Villages. The villages in different parts of Hissar district differ widely in appearance, and in the air of comfort and prosperity which they wear. The best are undoubtedly the Jat villages of Hansi and Bhiwani, and parts of Hissar and Fatchabad. It is especially so in those areas which have had the benefits of canal irrigation for any considerable period. Villages consist of collections of substantial and roomy enclosures containing good mud houses. A large number of them have many masonry brick houses, and one or more handsome and lofty brick-built *chaupāls* or rest-houses. The *paccā haveli* (or mansion) of the prosperous local trader is to be seen in many of them. At the outskirts of the village are the mud huts or hovels of the village artisans, leather-workers and the like. The village, as a rule, has one or at the most two entrances, and there is generally no passage right through it. In many cases it is divided into *panas* or wards between which there are no internal means of communication. Outside the village will be found one or more temples of Shiva or Krishna. Near the *abādī* will be at least one large and deep tank on the bank of which will often be seen a handsome *ghāt* and a *paccā* well provided with a reservoir for bathing or watering cattle. Near the tank is often found the hut of a sadhu who is regarded as the guardian of the tank. The tank is generally surrounded by a thick fringe of large trees, chiefly *neem*, *peepal*, *ber* and *kikar*.

Scattered around the village are the thorn enclosures (*gitwara* or *bahra*) in which the stacks of cowdung cakes are stored for fuel. Round the tank is a wide patch of open soil, which is jealously preserved as a catchment

FARMERS OF HARIANA

With the reclamation of forest land during the last five years, the situation has greatly changed. In place of trackless forest of *dhak*, one finds well laid-out farms around the road-side. This is mainly the contribution of the farmers from Jullundur and Amritsar as well as the Virk settlers from Sheikhupura who are hard-working farmers and can meet the challenge of hard life in these areas.

The houses in various parts of the district differ very considerably in the style of construction employed and the standard of comfort attained. The best are certainly those in the rich and prosperous Jat villages of Hansi and along the eastern border of the district generally. They consist of a covered gateway, often richly ornamented with folk designs with side rooms (*deorhi*) which opens on the lane (*gal* or *gali*); within this entrance is an open square or yard called variously *angan*, *sahan* or *bisala*; at the rear of this or on either side is a verandah and behind this again are the inner rooms for sleeping and living. The above is perhaps a fairly accurate description of the standard plan of a Jat house, but variations are innumerable. Frequently two or three minor enclosures will be found inside the main enclosure and sub-divided therefrom by walls. Within the enclosures are the *chulahs* or hearths at which the bread is baked, and each distinct confocal group living with the one enclosure has a separate *chulah*. The *arha* or oven, in which the daily porridge or *dalia* is cooked and the milk warmed, is generally outside the entrance and built against the outer wall of the house. The household cattle are generally penned at night either in the *angan* or in the room at the entrance. Fodder is often stacked on the flat mud roofs.

The furniture of the average Jat house-holder consists of some *charpais* or bedsteads, stools (*pidahs*) to sit on, the *charkha* or spinning wheel for his woman, a *kothi* or mud receptacle in the shape of a bin for his grain, a large wooden mortar made out of the trunk of a tree called *ukhal* with the pestle or *musal* used for husking rice on festive occasions.

The *chakki* or hand-mill is used for grinding the grain used daily. In most houses the *chhinka* or basket, will be seen suspended from the roof; food left over from the evening meal is kept upon it so as to be out of reach of the cats and dogs.

Karnal Villages. The villages of Karnal are usually situated on mounds which show how ancient they are. A village may be a successor of 4 to 5 *abadis* and the present structure which may not be so ancient is visible from a long distance. The houses are usually *paccā*, and double-storied. At the outskirts of the village are the *gohārās*, the pyramid like structures, in which dung-cakes are stored. They form a conspicuous feature of the rural landscape. In the houses are circular bins of clay in which grain is stored. Surrounding the village *abādi* is a narrow belt of cultivated land irrigated with the aid of persian wheels or *charsas*. Beyond this green belt is the *dhak* forest which appears grey and dismal in the month of February. Small patches of cultivation are swallowed by immense belts of forest which are the favourite haunts of wild animals and robbers. Communications are exceedingly poor. It is virtually impossible to travel by night and if one loses one's way one is likely to wander in the forest for hours before reaching a habitation.

wife regarding the various types of work which she is compelled to perform. The monotony of domestic life is only relieved by visits to the well, or occasional tiffs with the *dewar*, the husband's unmarried younger brother.

The Punjab is the land on the northern frontier of India, which has always borne the brunt of foreign invasions. Hence life in the Punjab has been particularly insecure, and women have been intensely attached to their brothers and husbands. Even now, large numbers of young men in the Punjab join the army leaving their wives behind. The pangs of separation of the newly married brides are described in a number of songs. Equally great is their pleasure on reunion with their husbands when they return home on leave. In the songs of reunion one feels the joy of generations of young men and women.

Life in rural areas was not so colourless and drab about a decade ago. The quiet and stillness of the night was broken by the melodies of young girls whose songs accompanied the humming of the spinning-wheel. The somnolent sound of the spinning-wheel — the *ghoon ghoon* — casts a spell on the girls. It is linked with sentiments which agitate their hearts. Thus sings the folk-singer in his song of the spinning-wheel :

Ghoon, ghoon, O spinning-wheel, ghoon ghon,
Should I spin the red roll of carded cotton or not ?
Spin, girl, spin, O spin, girl, spin.
Far off is my father-in-law's home, O spinning-wheel.
Should I live there or not ?
Live, girl, live, O live, girl, live.
Long, long is my tale of woe, O spinning-wheel.
Should I tell or not ?
Tell, girl, tell, O tell, girl, tell.

The songs of the sisters of the spinning-wheel are vanishing from the countryside. Gaily decorated *charkhās* studded with mirrors and *cowrie*-shells are becoming scarce. The *trinjan* is no more to be seen, and remains only a pleasant memory of the by-gone days of rural simplicity. With the wave of puritanism which has swept over the countryside in the form of religious reformistic movements, song and music have virtually disappeared from the Punjab villages. The peripatetic preacher with his harmonium is a poor substitute for the village bard and the minstrel. The folk-songs that survive in some villages which have escaped the onslaught of puritanical reforms are also in danger of extinction. The soul of the rural people is being bartered away for the doubtful gains of the so-called religious reform. Dull and monotonous hymns, the *bhajans* and *shabads* are replacing the soul-stirring folk-songs which have their roots in the remote past. The exodus of Muslim *mirasis* to Pakistan who regaled the people with their jokes has further added to the dullness of village life. The gramophone fitted with

CHAPTER XIV

FOLK CULTURE

THE folk culture of rural Punjab is expressed in the folk songs, dances, paintings which decorate the facades of houses, and the village embroideries.

The folk-songs of the Punjab countryside, with their burden of love and labour, have a peculiar charm of their own. In these songs, which are simple like the Punjab peasant, we feel the heart-beats of the rural people. They truly provide an insight into the minds of the villagers, their hopes and aspirations, their love-longings and joys and sorrows. In these songs we hear the tinkling of bells of the cattle returning home at sun-set, and we enjoy the beauty of the earth. They take us to the waving fields of green wheat speckled with yellow *sarson*. These songs make a direct appeal to us, for they remind us of many simple events and situations in our own lives.

Shahidis, the ballads of warfare, echo the clang of weapons, and the neighing and trampling of excited steeds. The gushing of blood from the wounds of the hero, and the rolling of severed heads of the enemies into dust is vividly described. The hero goes to the battle with serenity and imperturbability, as if going to a bridal feast. In these songs we also hear the laughter of a race, and the wail of generations of young women separated from their lovers.

The groves are ringing with the peals of laughter of young girls swinging in *jhulās* from the branches of *neem* and *peepal* trees. In the star-light one hears the thud of the *dholak* drum drowned by the voices of young women singing the songs of marriage. The braids of the bride are being woven, and draped in red cloth, she is preparing for the ordeal of marriage. The marriage being over, she is carried by *kahārs* in a palanquin, and leading the bridal procession is the bridegroom on horse back. In her father-in-law's home a new experience awaits her. She would be lucky indeed if she gets a kind-hearted mother-in-law. An outsider has come to share her son's affections, and a strange type of jealousy develops between the young wife and her mother-in-law. The mother-in-law has gone through a generation of drudgery and toil. She starts her day in star-light when the cock crows, and spends two hours grinding flour with the hand mill. Then she milches the buffaloes, churns the curd, and makes *lassi* and butter. When free from this work she prepares the morning meals, and takes them to her sons and husband who are ploughing the fields. The laziness of the young bride is tolerated for some time, and then she is asked to share the toil with her mother-in-law. In the folk-songs one hears many complaints from the young

harvest time and on ceremonial occasions like marriage, birth of a son, fairs, etc. For its themes it has a hundred subjects, varying from the bounty of Nature and legendary battles to the loneliness of a young bride separated from her husband.

The *Jhumar* is a dance of ecstasy, a loving response to Nature's kindness. We often find a youngman, his little son, and his old father dancing together. Any time is *Jhumar* time, for it is just an ecstatic expression of the spirit's joy. The number of dancers including the instrument players is usually about 25 to 30. The waves of puritanism which swept over the Punjab countryside in the first quarter of the twentieth century had frozen art and life; song and dance were regarded as immoral. Recently the community development movement has provided a great impetus to cultural revival in the countryside, and folk-songs and dances are again becoming popular in the plains of the Punjab.

The Gaddi shepherds living in the upper ranges of the Kangra Valley have preserved their ancient dance and music in spite of the opening of the valley to tourist traffic. Dressed in kilts of snow-white wool, with their loins girt with yards of thick black ropes, they dance with a spirit of abandon and freedom to the tune of the thumping *nagārā* drums. Generally, the men and women dance separately. The men dance in public, while the women have their gatherings in the compounds of their houses. About 25 to 30 dancers form a circle, and begin slow rhythmical movements to the beating of the *dholak* and the sweet piping of the *shehmai*. Their womenfolk, dressed in colourful home-spun garments and laden with silver jewellery sit round the dancers providing inspiration. Soon the dance gathers momentum, and cries of *hari nats* (let us dance) and *bhalla hai* (we are happy to dance) fill the air. The dancers wheel round and round with their hands raised and their *cholās* spreading like open umbrellas. *Lugri*, a liquor made from fermented rice, keeps their spirits up; and they continue to dance till late into the night recounting the nocturnal adventures of the Gaddi lovers, Konjua and Chanchlo, the Romeo and Juliet of the Chamba Valley.

The folk-dances of Kulu possess a distinct individuality. The dancers wearing white long coats, and black caps with tufts of iridescent *monal* plumes, appear very picturesque. To the sound of drums and trumpets they dance the whole day through. Their Sword Dance is very manly, and they execute it with great skill. This dance is both a matter of pleasure and religious duty. Every god (*devta*) in the valley has its band of musicians and dancers, who accompany it wherever it goes. In a blare of trumpets and other various musical instruments, the swords wave and the dancing starts. Some of the dancers pair out, and try to parry the thrusts of each other. Some of them hold a sword in one hand and scabbard in the other; others hold swords in both hands. The dance ends with the dancers reforming the circle and giving a graceful exhibition of rhythmic movements waving handkerchiefs.

loudspeakers has already invaded the countryside, and the cheap and vulgar film music is ousting folk-songs.

It is mainly the village women who have preserved the tradition of dance and music in the countryside. They are developing an inferiority complex now, and regard their songs, dances, and even dress as something primitive and unworthy of ladies. The colourful *ghagri* in the Hariana district, is at a discount and is being replaced by the *salwār* which is regarded as a dress of cultured ladies. The folk-songs are likewise, regarded only good enough for yokels, and have succumbed before the onslaught of the film and the gramophone.

FOLK-DANCES

Like folk-songs, the folk-dances are also an outburst of deeply felt emotions. Every region has its own country-dances. The *Bhangrā*, the *Giddhā* and the *Jhumar* are native to the plains of the Punjab; the *Gaddi* dance is peculiar to the Gaddis; and the sword dance and the *Kārthi* are popular in Kulu Valley.

The *Bhangrā* is, perhaps, the most virile form of Indian folk-dances. It is the Labana Sikhs, the Rai Sikhs, and the Jats from Sialkot, Sheikhpura, and Gujranwala, who have preserved the tradition of this dance. Starting with slow drum-beats, with which the dancers, clad in typical village dresses, keep time, the tempo rises suddenly, the drums beat faster and louder, and the dancers go wheeling round. The onlooker is entranced by the strength and vigour of the dancers, who punctuate their rhythmic movements with songs which are often ribald. The *Bhangrā* season starts with the wheat sowings, and then every full moon attracts teams of lusty young men in every village, who dance for hours in the open fields. On the Baisakhi day, which marks the close of the *Bhangrā* season, the countryside resounds with the shouts of the dancers, who look as if possessed by a terrible spirit.

During the month of *Sāwan* the newly-married girls return to their paternal villages. These girls, along with other girls of the village, celebrate the season through dance and singing. The young husbands, who have come with their wives, are also allowed to participate. The dance usually takes place on the bank of some river or a pond under big shady trees or in mango groves. The mango gardens gloomy and funereal a few weeks ago now suddenly throb with life and gaiety. In the month of March, they resound with the shrill music of *koels*, and now they are filled with the gay laughter of young girls. Swings are thrown over the branches, and singing and swinging and dancing start. The dancers look a medley of colour and beauty.

The *Giddhā* is confined to the women. It is, however, by no means a gentle style of dancing; and even in the presentation of the most delicate sentiments it is appealingly full-blooded and vigorous. It is common during the

SECTION II
HIMACHAL PRADESH

The *Karhi* is another popular dance of the Kulu Valley. In it both men and women find an occasion for relaxation and rejoicing after the autumn harvest. Dressed in gay clothes they assemble in an open field, and dance and sing in moon-light. The dancers form a circle by linking their arms, and begin their movements slowly. Soon the tempo rises; and when the dance reaches its climax, the women dancers pique their partners further by swinging ecstatically while beating time with their hands and feet. The dance movements are intimately connected with the sentiments of the songs, whose themes vary from love to description of historic events, and paying homage to the gods.

EMBROIDERIES: BAGHS AND PHULKARIES

Bāghs and *phulkāries* used to be embroidered by the village women of the Punjab till about a decade ago. Pieces of home-spun cloth, dyed in rich crimson colour, served as background for beautiful designs embroidered in yellow silk floss. Closely embroidered designs which covered the cloth entirely were called *bāghs*, i.e. gardens, while those with spaced designs were called *phulkāries* (scattered flowers). Women spent their entire leisure embroidering these; and a good *bāgh* took one to two years to be completed.

The *bāghs* and *phulkāries* are essentially the work of leisure. The village woman found expression for her inner harmonies in this type of embroidery. The sun, the moon, the starlit skies, the golden yellow fields of *sarson*, the deep blue blossoms of linseed, and the colourful birds, like peacocks and parrots, provided the inspiration for this art; and as the village woman sat down to embroider the roll of crimson home-spun *khaddar*, a whole world of soul would crowd into her stitches. The peace of Nature, faith, hope, devotion — in fact the full gamut of experience and emotions vouchsafed to unsophisticated hearts — was transferred on the cloth on her lap in the few strokes of a motif.

The *bāghs* and *phulkāries* of Moga tehsil in Ferozepur district are well-known for their beauty and elegance. Compared to these, the *phulkāri* designs from the Doaba districts are comparatively crude. But it is impossible to evaluate the beauty of this simple domestic art in terms of the aesthetic yard-sticks of the city-man. Now the art is dying out in this machine-dominated age. Influx of cheap and gaudy machine-made printed textiles has dealt a death blow to the ancient embroideries. Moreover, the village women do not have the same leisure or patience as their ancestors had, and have also lost the skill which the older generation possessed.

HIMACHAL PRADESH

HIMACHAL PRADESH, one of the youngest States in the Indian Union, came into existence in 1948 on the integration of some 30 Hill States of the Western Himalayas. Apart from the States of Chamba, Sirmur, Mandi, Suket and Rampur-Bushahr, the merging States were only tiny units, the largest in size being Rampur-Bushahr with an area of 3,439 square miles; Ratesh, which was the smallest, covered only two square miles.

Himachal Pradesh lies on the route to Tibet. It is surrounded on the north and north-west by Jammu and Kashmir, on the north-east, south-west and west by the Punjab, on the east by Tibet, and on the south-east by Uttar Pradesh. It has a total area of 10,904 square miles and a population of 11·09 lakhs (1951 Census), which gives an overall density of 102 persons per square mile.

Himachal is one of the five regions of the Western Himalayas of the Puranic concept, and generally coincides with the old Jullundur Khand leaving out Kangra and other hilly areas of the Punjab. It comprises five districts, namely, Mahasu, Mandi, Bilaspur, Chamba and Sirmur. The whole State has only nine towns and 12,000 villages.

The railway link with Himachal is provided by two short branch lines which terminate at Simla and Jogindernagar. The road system is also inadequate which makes transport very difficult. The mountain ranges are of varying heights, and run in diverse directions separating the valleys which lie between them. To reach some of the valleys one has to climb over high mountains and cross numerous torrents. This makes intercommunications difficult, particularly during the winter months when snowfall is frequent and heavy.

The State can broadly be divided into three regions: (i) Outer Himalayan Region, (ii) Inner Himalayan Region and (iii) Alpine Pastures. The boundaries of the Outer Himalayan region touch the plains of the Punjab. The whole area abounds in valleys, and each group of villages is bounded by hills and streams. The Inner Himalayan region is a thinly populated country of high mountains and narrow valleys. The alpine pasture-lands which remain under snow for about six months in the year, and are very sparsely populated. Wherever cultivation is done, yaks are used for ploughing the fields. Most of the inhabitants migrate during the winter months to warmer parts, and return to their homes only when the snow begins to melt.

The mountains of the Simla hills zone form a continuous series of ranges, ascending from the low hills which bound the plains of Ambala to the great central chain of the Western Himalayas. This central chain terminates a few miles south of the Sutlej in Bushahr. The Bushahr territory is broken

Ashmi, or Assan river, which rises near Mahasu and joins the Giri just at the point where that river turns south-east. The Gambhar rises in the Dagshai hill, and, running north-west past Sabathu, receives the Blaini and several other streams which rise in the hills to the south of Simla, and, still continuing its course north-west, empties itself into the Sutlej about 8 miles below the town of Bilaspur. The Sirsa collects the drainage of the Dun of Nalagarh. Except the Sirsa, all the streams are perennial, retaining a small supply of water even in the winter months, and swelling to formidable torrents during the rainy season. The Pabar is fed from perennial snow.

In the Chamba area the Himalayas present three well-defined snowy ranges. These run more or less parallel to one another, from south-east to north-west. The first range — the one nearest the plains — is known as Dhaula Dhar, which in Kangra is generally spoken of as the 'Chamba Range'. It separates the basin of the Beas from that of the Ravi. The second range is the Pangi Range which forms the watersheds between the Ravi and the Chenab. The third is the Zanskar Range lying between the Chenab and the Indus. These ranges are all in general continuity with the main Himalayan chains from the east, and are continued westward into Kashmir territory. The greater part of the tract between the outer hills and the Dhaula Dhar lies in the Beas Valley, and, with the addition of a small portion of the lower Ravi Valley, forms the Bhattiyat *Wizārat*, which in proportion to its size is the most populous and fertile sub-division of the region. Its vegetation is semi-tropical, and the bamboo, the *pipal* and the mango flourish luxuriantly in close proximity to the fir, barberry and the oak. The tract between the Dhaula Dhar and the Pangi Range constitutes the drainage area of the Ravi. It is occupied by the spurs of the high ranges, splaying off at all angles, and inter-mingling with one another in such a way that they have no regularity or order about them. They are intersected by deep narrow valleys in which flow various streams that bring down their waters to the Ravi. Of these the largest is the Siul, which drains the whole of the north-western portion of the Chamba Valley. The region between the Pangi and Zanskar ranges is somewhat of an irregular square. It comprises the valley of the Chandrabhaga through nearly 80 miles of its course.

In the hills, the landscape is always interesting and there is endless variety to charm the eye; but nothing on the ordinary stages of the journey through them can compare in beauty and grandeur with the high passes. The tree line is reached at about 11,500 feet and then the forest ends and the traveller emerges on the mountain side. Above him tower massive rocky pinnacles of the high ranges with their drapery of snow, while glaciers fill the hollows between them. Below, the hills and valleys of the lower ranges stretch far into the distance. The ground, though bare as regards trees, is carpetted with flowers of every hue. The profusion of this floral display diminishes with the increase of altitude, but many beautiful species

on its northern frontier by spurs from the snowy hills which separate it from Spiti, and on the east by similar spurs from the range shutting it off from the Chinese territory. Starting from the termination of the Central Himalayas, a transverse range, the last to the south of the Sutlej, runs south-west throughout the length of the region, forming the watershed between the Sutlej and the Jamuna. A few miles north-east of Simla, it divides itself into two main branches, one following the line of the Sutlej in a north-west direction and the other, on which Simla stands, continuing south-west, until, at a few miles north of Sabathu, it meets at right angles the mountains of the Outer or sub-Himalayan system, which have a direction parallel to the Central Himalayas, i.e. from north-west to south-east. South and east of Simla, the hills lying between the Sutlej and the Tons, the principal feeder of the Jamuna, centre in the great Chaur peak (11,982 feet), itself the termination of a minor chain that branches off southwards from the main Simla range. The mountain system (excluding Bushahr) may thus be mapped out roughly into three portions: the Chaur peak, and the spurs radiating from it, occupying the south-east corner; the Simla range, extending from the Central Himalayas to the neighbourhood of Sabathu; and the mountains of the sub-Himalayan series, running from north-west to south-east, and forming the boundary of the Ambala plains. The last-mentioned group may be sub-divided into the sub-Himalayas proper, and an outer range, corresponding to the Siwalik hills of Hoshiarpur on the one side and of the Gangetic Doab on the other. The sub-Himalayan and the Siwalik ranges form parallel lines, having between them an open space of varying width, known as the Kiarda Dun, a broad and well-cultivated valley.

The principal rivers by which the drainage of the Simla hills is effected are the Sutlej, the Pabar, the Giri or Giri Ganga, the Gambhar, and the Sirsa. The Sutlej enters Bushahr by a pass between two peaks, the northern of which is 22,183 feet above sea-level, and flows south-west through Bushahr, receiving the drainage from the Central Himalayas on the one side and from the Spiti hills on the other, till it reaches the border of Kulu, a few miles above the town of Rampur. From this point it forms the boundary of the erstwhile Simla States, until, shortly before reaching the border of Kangra proper, it turns southwards and passes through Bilaspur which it divides into two nearly equal portions. Its principal feeders in Bushahr are the Baspa from the south, and the Spiti from the north. The Pabar, which is one of the principal feeders of the Tons, and therefore of the Jamuna, rises in Bushahr, having feeders on the southern slopes of both the Central Himalayas and the transverse Simla range. It flows southwards into Garhwal. The Giri, or Giri Ganga, rises in the hills north of the Chaur, and, collecting the drainage of the whole tract between that mountain and the Simla range, flows south-west until, meeting the line of the Outer Himalayas, it turns sharply to the south-east, and enters Sirmur. Its principal feeder is the

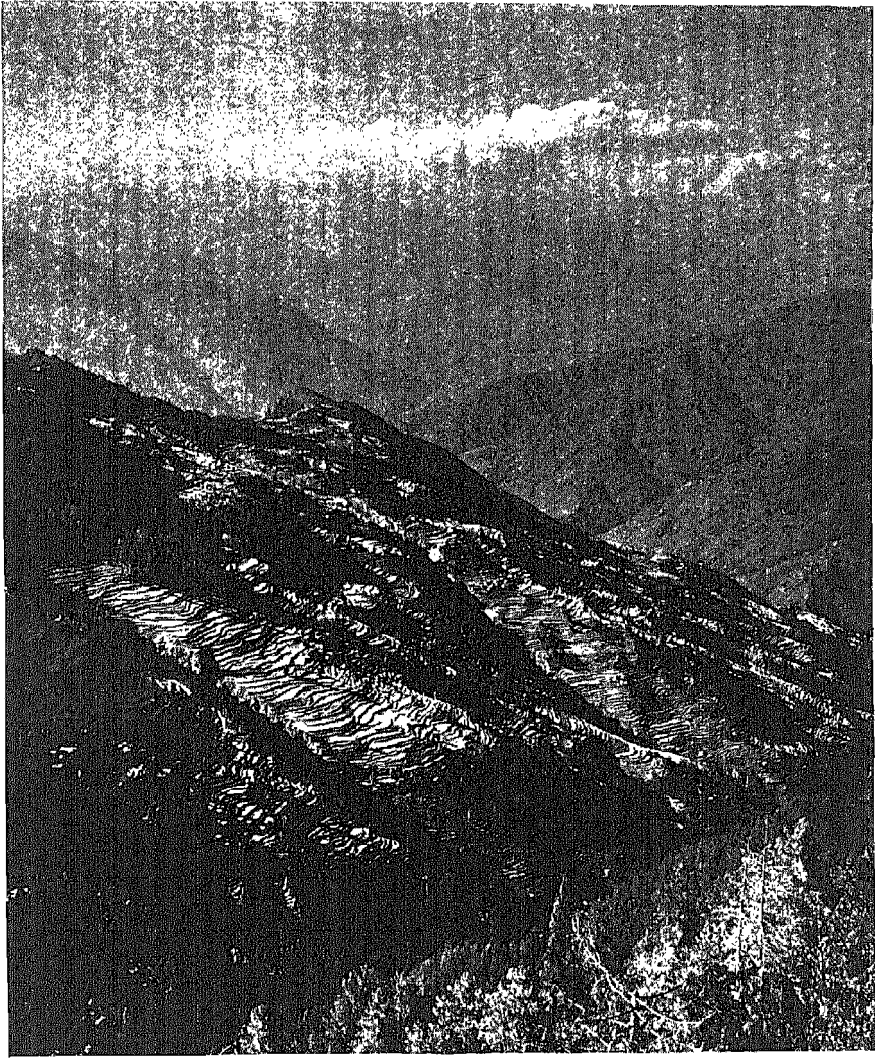


FIG. 67. A bird's-eye view of terraced fields in Kotgarh, Himachal Pradesh

are found almost up to the summit of the passes where the rocks are free from snow. So extensive is the prospect from some of the passes that the vision reaches beyond the intervening ranges, and on a clear day even the great rivers of the plains may be seen at a distance of a hundred miles glistening in the sunshine.

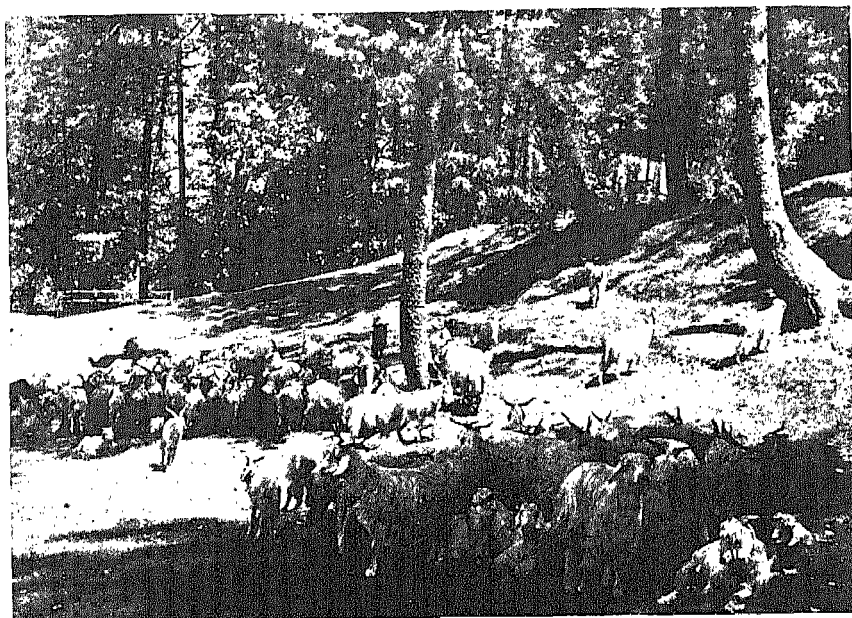


FIG. 69. A shepherd's flock in Chamba Hills



FIG. 70. A village near Theog with neatly terraced fields

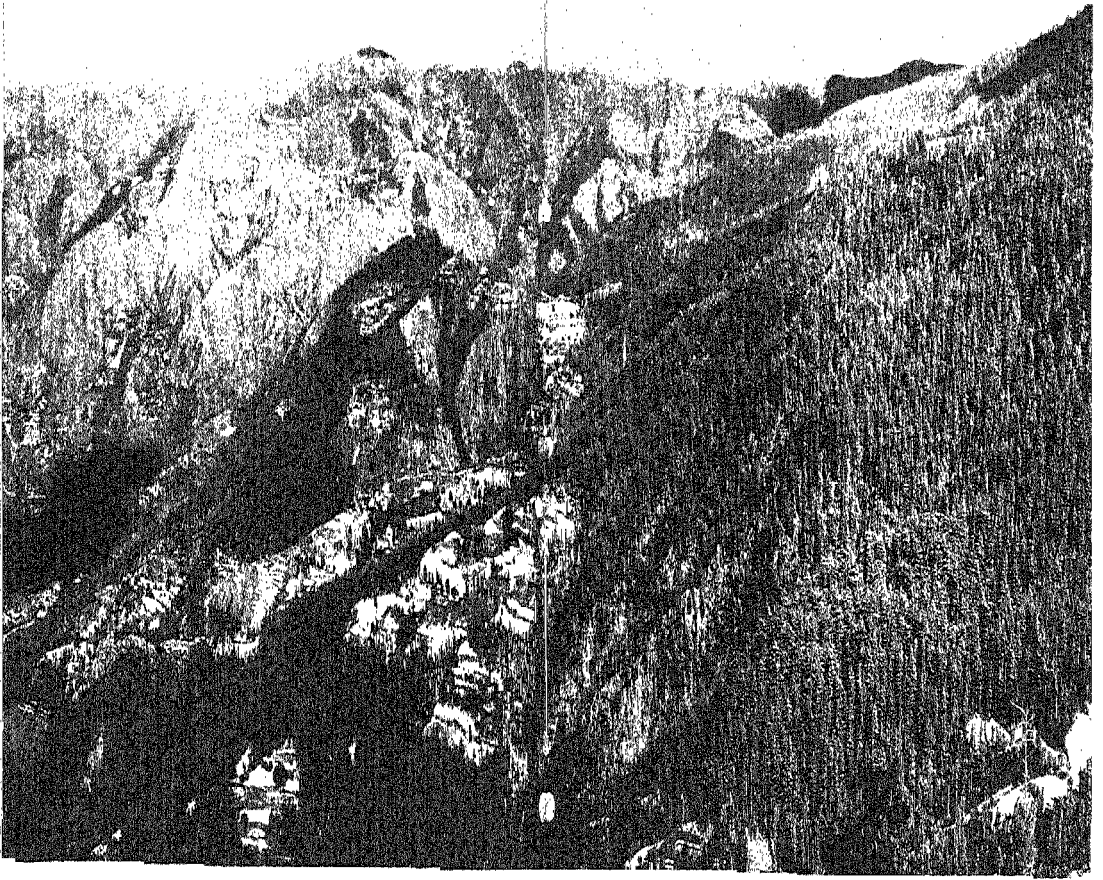


FIG. 68. View of a typical landscape in Himachal Pradesh. Note the luxuriant *deodar* forest on the northern aspect and the dry slopes on the southern aspect

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and temperate fruits. The carbon-nitrogen ratio is wide, and decomposition is low. The soil reaction is markedly acidic.

Mountain Zone. The zone comprises the high elevation tracts in Mahasu, Chamba and Sirmur districts which vary in altitude from 7,000 ft. to 10,000 ft. above the sea-level. The area is mostly under forests; only in some parts potato and temperate fruits are grown. There are good grazing grounds in the region to which shepherds bring their flocks during the summer months.

The soils in this area are generally shallower than those in the High Hills zone. They range from silty loams to loams, and are of dark brown colour. The soil reaction varies from slightly acidic to moderately acidic. The surface drainage is very rapid, and the internal drainage is fairly good. The carbon-nitrogen ratio is very wide.

Dry Hills Zone. Chini tehsil of Mahasu district and Pangi tehsil of Chamba district, where rainfall is almost negligible, form a separate zone which may be called the Dry Hills zone. These areas are suitable for the cultivation of dry fruits.

CHEMICAL CHARACTERISTICS OF SOILS

The data available about the physical and chemical characteristics of the soil zones described above are given in the following table.

Zone	Texture	pH	Organic carbon per cent.	Nitro- gen per cent.	C/N ratio	CaO per cent.	P ₂ O ₅ per cent.	K ₂ O per cent.	Ex- change capacity
Low Hills	Sandy loam	7.0 to 1.0	to	0.1 to 10	12.5	0.61	0.2-	0.6-	15-16
	silty loam	8.0	2.25	0.2		0.84	0.3	0.7	
Mid-hills	Loam to	6.5	1.0	0.1	10-	0.6 to 0.2	0.4	10-18	
	clay loam	7.0	2.5	0.25	10.50	1.0	0.7	1.5	
High Hills	Silty loam	6.0	2.5	0.25	10-	0.4	0.1	0.9-	12-19
	to clay loam	6.5	3.5	0.30	11.6	1.0	0.4	2.0	
Mountainous	Loam to	5.5	2.5	0.25	10-	0.4	0.2	0.5	12-17
	silty loam	6.5	6.5	0.35	18.5	1.2	0.5	2.0	
Dry Hills	Data not available.								

CHAPTER XVI

SOILS

THE soils of Himachal Pradesh fall into five major zones: Low Hills zone, Middle Hills zone, High Hills zone, Mountain zone, and Dry Hills zone. These are briefly described below.

Low Hills Zone. This includes Paonta Valley and covers Nahan tehsil of Sirmur district, parts of Arki, Solan, Kasumpti and Suni tehsils of Mahasu district, Sadar and Ghumarwin areas of Bilaspur district, Mandi and Jogindernagar tehsils of Mandi district, and Bhattiyat of Chamba district. The altitude of the area ranges from 1,500 ft. to 3,000 ft. above the sea-level, and the soils are located mainly in the narrow valleys through which numerous hill streams flow.

The soils are mostly sandy loams, varying from light grey to brown in colour. They are not very deep, and abound in pebbles, stones and boulders. Irrigation facilities are available at a large number of places, and the soils are well drained. They are neutral and respond well to organic manures and chemical fertilizers.

Middle Hills Zone. This includes the lower part of Rainka tehsil and the Cis-Giri area of Pachhad tehsil in Sirmur district, parts of Arki, Solan, Kasumpti, Suni and Theog tehsils of Mahasu district, Sarkaghat, Sundernagar, Chachiot and part of Karsog tehsil in Mandi district, and Chamba and part of Tissa tehsil of Chamba district. It lies over an altitude of 3,000 ft. to 5,000 ft. above the sea-level.

The soils in this zone are located mostly on the hilly slopes which are of varying gradients. They vary from loam to silt loam; texture is medium fine, and colour ranges from grey to black. On account of rapid internal drainage they are susceptible to drought. The response to organic manure as well as to fertilizers is good. The soil reaction varies from neutral to slightly acidic.

High Hills Zone. The zone comprises the upper parts of Rainka tehsil and the Trans-Giri area of Pachhad tehsil of Sirmur district, Theog, Jubbal, Chopal, and Rampur tehsils of Mahasu district, Karsog tehsil of Mandi district, and Bharmour, Chamba, and Tissa tehsils of Chamba district. The altitude varies from 5,000 ft. to 7,000 ft. above sea-level.

The soils are of very fine texture and of darkish brown colour. They vary from silt loams to dry loams, with little gravel percentage. They are often quite deep, the depth at some places being 60 ft. There are no irrigation facilities. The soils have good drainage, and fertility status is also quite high. They are rich in potassium, and respond well to application of nitrogenous and phosphatic fertilizers. They produce a very good crop of seed potato

In the Simla hills the monsoon rains are heaviest in the south-eastern parts. They diminish towards the south-west and north-east, and are practically spent before they reach the northern portion of Kanawar in Bashahr. Near the Tibetan border a continuous wind blows, driving dust or dry snow and stunting the vegetation.

Along the valley of the Sutlej as far east as Wangtu and on the Pabar side of the watershed, the rainfall does not greatly vary from that at Simla (i.e. about 65 inches); but beyond Wangtu the difference is considerable, the rainfall becoming less and less as Shipki is approached, so that the climate of upper Kanawar is semi-arid. West of Wangtu the Sutlej Valley has an annual rainfall of about 70 inches. At Kilba, ten miles east of Wangtu, this drops to 43 inches, and at Poo, some twelve miles from the border at Shipki, to 16 inches. The monsoon is spent before it reaches Chini. During the summer months the heat is intense along the Sutlej, and in secluded valleys at low elevations. The Pabar Valley, too, is hot. Generally speaking, the temperature of inhabited places is moderate in summer, and in the Kanawar valleys the winters are comparatively genial. The snow line varies with the locality and is lower on the north than on the south side of the hills. Snow has been known to fall as low as Bilaspur, but it seldom lies for more than a night below 5,000 feet. The Chor peak (11,892 feet) is covered between December and May. On the higher hills to the north, the snow melts below 15,500 feet in July on the southern slopes. The passes in the snow hills are open between May and July, and again in September and October. The highest passes are only open for a short time between the rains and the first autumn snow-fall.

CHAPTER XVII

CLIMATE

HIMACHAL PRADESH is largely a mountainous country with altitudes ranging from 2,000 to 22,000 feet; and climatic conditions accordingly vary from the semi-tropical to semi-arctic. The climate of Beas Valley is similar to that of Kangra and the Siwalik area. The heat in summer is intense though less severe than that experienced in the plains of the Punjab. The rainy season is heavy and prolonged. Winter is pleasant and bracing, with only a moderate degree of variation between the day and night temperatures. Snow-fall is rare though in exceptional years it has been recorded even at elevations of 2,000 feet. In the upper portions of Bhattiyat, adjoining the high range, the climate is temperate. The rainfall is very heavy, and in winter snow lies for some months to a considerable depth on the higher spurs as well as on the main range itself.

In the Ravi Valley the climatic conditions vary with the altitude. In the lower portion they are of a semi-tropical character. The heat is great, and the rainy season well-marked, while the winter is mild, and the snow-fall light. In Chamba the mean maximum temperature is about 80°F. and the mean minimum about 56°F., though temperatures of 108°F. and 30°F. have also been recorded. From there upwards the conditions are more severe, and vary from the temperate to the semi-arctic.

In the Chandrabhaga valley the climate is temperate in summer and semi-arctic in winter. As the lowest altitude in the Pangri Valley is 7,000 feet, no great heat is ever experienced. The summer is exceedingly mild and pleasant, while owing to scanty rainfall humidity is always low. The winter is generally very severe. Snow-fall begins in October, and after December the whole valley is under snow till March or April. Communications are sometimes cut off, and the villages become isolated completely.

The yearly average of rainfall in Chamba is about 50 inches. The major portion of it is deposited during the summer months from June to September, the average being 25 inches. The average precipitation between January and May is about 21 inches. The remaining months of the year, i.e., from October to December, show an average of only 3 to 4 inches. The fall is heaviest on the Dhaula Dhar and Pangri ranges.

In Bhattiyat, south of the Dhaula Dhar, the rains are heavy, and the Ravi Valley also receives a fair proportion of moisture. The Brahmaur area has, probably, the lowest precipitation. Owing to the great altitude of the Pangri range the rain clouds deposit most of their burden on its southern slopes, and only a scanty supply reaches the Chandrabhaga Valley, which falls in light showers, chiefly in July and August. The yearly average is probably not more than 25 inches.

Throughout Chamba, from 7,000 feet above the sea to the limit of herbaceous vegetation, the smaller plants are, for the most part, allied to west-Asian or mid-European types. Sometimes the actual species are identical. In the arid part of the Chenab basin mid-Siberian and Tibetan types are prominent.

Starting from the south-west boundary of Chamba, adjoining the Kangra and Gurdaspur districts of the Punjab, the principal forest tree is the *chil* which is found either as open forest mixed with scrub undergrowth or as dense pure forest. The *chil* is also found along the banks of the Siul and Ravi rivers up to an elevation of about 5,000 feet, and near Dalhousie is associated with the *ban* oak and *Rhododendron arboreum* (*bras*) up to 7,000 feet. Throughout the region of the lower hills the following trees are commonly met with: *Tun*, *tali*, *ber*, *siris*, *simbal*, *bohr*, *pipal*, *dhak*, *amaltas*, and *kral*, the last three being remarkable for their fine flowers.

In the basin of the Ravi and Siul rivers, at elevations between 7,000 to 12,000 feet, the principal timber trees are the *deodar*, the spruce or *tos* and the silver fir or *rai*. Throughout these forests the blue pine or *kail* is commonly found mixed with the *deodar*, and towards Brahmaur this tree becomes the principal species. The *deodar* is found either growing by itself to form pure forest, or mixed with its associated species, the blue pine and spruce, at elevations between 7,000 feet to 9,000 feet, and more rarely with the silver fir up to 10,000 feet. The great majority of the Chamba *deodar* forests are of the mixed type in which the *deodar* only forms a small proportion of the stock, being generally found along the ridges and spurs, the intervening hollows being occupied by the firs. In these forests natural reproduction of *deodar* is generally poor. Outside the *deodar* producing area there is a large extent of fir forest; sometimes mixed at higher elevations with the *krao* oak. The forests are chiefly of value as summer grazing grounds and for the protection they give to hill sides. They are also of use in conserving the water supply in springs and streams.

In this region three oaks are met with, the *ban*, the *mohru*, and the *krao*. The *ban* is generally found about 7,000 feet, the *mohru* between 7,000 and 9,000 feet and the *krao* at elevations up to 12,000 feet, where it sometimes forms pure forests. At 12,000 to 13,000 feet the *bhuji* or birch is found growing with the white *rhododendron* and the stunted *dhub*. All three oaks are eagerly lopped for fodder when in the vicinity of village.

The other principal trees of this region are the walnut, elm, maples, horse chestnut, hill tun, ash, olive, alder, willows, poplars, and yew.

In the Pangi Valley the forests are found along the banks of the Chandra-bhaga river at an elevation of 7,000 feet. Owing to its remoteness, and to the high passes over which the monsoon has to cross, the rainfall of this region is very much less than that of Chamba, and the character of the forest vegetation alters accordingly. In these forests the *deodar* and blue pine are predominant, easily holding their own against the firs, which do not

CHAPTER XVIII

FORESTS

HIMACHAL PRADESH has extensive forests which cover almost 35 per cent. of the total area. About 25 per cent. of the State revenue comes from these forests. Besides, they provide employment to nearly 5 lakh persons, and grazing facilities to about 20 lakh animals. The average annual production of timber is about 34 lakh cubic feet. The forests also form the catchment areas of big rivers like the Sutlej, Beas, Ravi, Chenab, and Jamuna.

The vegetation of the outer Chamba Himalayas closely resembles that of the Simla Hills, but in Chamba a higher proportion of temperate zone forms reaches the exterior ranges. On the other hand, certain sub-tropical types, such as epiphytic orchids, find their western limit on the watershed between the Ravi basin and the Kangra Valley. Trees and plants of European aspect are not very common, while Indian forms predominate, such as the candlestick *Euphorbia* (often misnamed 'Cactus'), the large *taur* climber (*Bauhinia vahlii*), the *amultas* or 'Indian Laburnum' (*Cassia fistula*), several thorny Acacias, the *amla* (*Phyllanthus emblica*), sundry species of *Ficus*, bamboos, a sub-tropical barberry, and the curious *Prinsepia* (*behkar bekli*). Above 3,000 feet less tropical assemblages appear, such as, woods of *Pinus longifolia* with associated shrubs and herbs. In places the wild olive (*Olea cuspidata*) occur, while several kinds of clematis, a climbing rose and a tall azure-blossomed larkspur are abundant. At 6,000 feet oak coppice with the scarlet Rhododendron, Pieris (both of the heath order), Indigofera and Desmodium replace the pine woods. At Kalatop, near Dalhousie, the mixed temperate forest is exemplified in great perfection, the characteristic firs and pines of the moist north-west Himalayas being mingled with holm-oaks, flowering chest-nuts, maples, hollies, elms, yew, Celtis, Euonymus and Walnut, with an undergrowth of guelder roses (*Viburnum*), Staplyca, honey-suckles, Spiracas, meadow-rues, Arisaemas (cobra-plants), balsams and anemones, and large vines (*Vitis* and *Hydrangea*) mantling the stems and branches. There are fine cedar (Deodar) forests about Khajiar, and from 6,000 to 10,000 feet above sea-level; also in the valleys of the Chandrabhaga (Chenab) basin in Pangi. Higher up the valley all conifers diminish rapidly, till in Chamba-Lahaul patches of *Pinus excelsa*, scattered pencil cedars and juniper-scrub alone represent their family. At alpine levels on the upper Ravi, and in sheltered glens of the Chenab basin, birch, ash of two kinds, hazel and wild currants flourish; in Pangi towards the borders of Kashmir the hawthorn and wild gooseberry and the *Pinus gerardiana* (*chilgoza* pine) are frequent; also, a species of witch-hazel (*Parrotia jacquemontiana*) which gives its name, *kilar*, to the chief place in the Valley.

CHAPTER XIX

CROPS AND FARMING PRACTICES

THE revenue records of Himachal Pradesh account for an area of only 23·13 lakh acres, which is nearly 33 per cent. of the total geographical area of the State. The remaining 66 per cent. area is under high hills and thick forests which have not been surveyed so far. A rough classification of the recorded area is as follows:

	<i>Area in acres</i>
Forests	3,99,601
Barren and uncultivated land	69,387
Land put to non-agricultural uses	87,870
Cultivable waste	90,792
Permanent pastures & grazing land	8,57,897
Current fallows	39,634
Outer fallow land	17,386
Net area sown	6,78,663
Miscellaneous	71,518
Total ..	23,12,648

It would be seen that only 6·79 lakh acres, i.e. nearly 29 per cent. of the area shown in the revenue records or 9·6 per cent. of the total geographical area, are available for cultivation. This amounts to just about half an acre per head of the agricultural population. The holdings are, therefore, generally very small, and the rewards from agriculture poor. Cultivation is carried on wherever possible, both on the hill slopes and in the valleys, and the fields are laid out in all manners to suit the terrain — sometimes irregularly placed, sometimes neatly levelled and built into terraces. The three kinds of lands which are usually recognised are: (i) *rooa* or level irrigated land; (ii) *bakhal* or unirrigated land, sometimes terraced but more generally soping; and (iii) *banjar* or poor unirrigated land in the high hills, only fit for grass and buck-wheat. The farmers divide the soils into six classes as follows:

1. *Kiār*, land which is fully irrigated from water courses.
2. *Sanjiār*, land irrigated with water which collects in pools during the rains and the supply of which does not last beyond the sowing of wheat crop.
3. *Bakhal* and *Karali*, land situated near the homesteads, heavily manured and bearing two crops a year or at least three crops in two years.
4. *Bakhal Kiār*, land which is occasionally flooded by streams or is fed by water flowing from other fields.

FORESTS

attain the same size as in Chamba proper and occupy a quite subordinate position. The *deodar* and blue pine here grow in profusion, and there is no lack of natural reproduction in the forests. In the neighbourhood of Dharwas is also found the edible *chilgoza* pine.

The forests of the Simla hills are their most valuable asset as well as their most interesting and picturesque feature. The *deodar* grows at elevations between 7,000 and 8,500 feet, and is seen at its finest in the forests of Bushahr, Jubbal, and Tarhoch. Large areas in these parts, as also in Balsan and Kumharsain, are covered with forests in which the *rao* or Himalayan spruce predominates. The *rao* extends to a higher elevation than the *deodar*, as does the *pand-rao*, a slightly more valuable wood. The blue pine or *kail* is often mingled with the *deodar*, while on hill slopes from 2,000 or less to 6,000 feet high the *chil* is in many places the most distinctive tree. Of the two the *kail* produces the better timber. The edible *chilgoza* pine is common in Bushahr.

Of oaks the one found highest is the *kharsu*, which often grows above the range of pines. The *mohru*, which grows at a slightly lower elevation, is one of the most valuable fodder trees in the higher hills. The leaves are stripped once every three years. Both the *kharsu* and the *mohru* bear a fruit eaten in times of scarcity. The *bān* is used extensively for making charcoal. It also provides stout rafters and hardwood for making oil presses. The walnut tree is common. The rhododendron thrives in several varieties. In the lower hills, the bamboo grows extensively. The *shisham*, *sal*, *bor*, *pipal* and *sambhar* are also found. The mango tree is common, but bears fruit of poor quality.



FIG. 72. A young girl with a sheaf of wheat



FIG. 73. Women harvesting wheat



FIG. 71. Heavy loads of hay are carried by village women on their backs in Himachal Pradesh

Masur (lentil): Sown in October, and cut in May and June.

Kharif Crops. These consist mainly of maize, paddy, gram, sugarcane, potato, millets and *bhang*.

MAIZE: It is grown abundantly throughout the State. It is sown with the first showers of the monsoons. The fields are prepared after the harvest of the *rabi* crop. In some parts, the seed is sown broadcast while in others it is put in furrows behind the plough in rows. Generally, earthing is done during the rainy season. The crop is harvested from the end of September to early November.

PADDY: It is an alternative to maize, and is grown both as a rain-fed and irrigated crop. Under *barani* conditions, it is sown broadcast in June; in irrigated areas the seedlings are transplanted in the fields in July. The rain-fed paddy is harvested towards the end of September or in early October; the irrigated crop is reaped from October to November.

Rice is of four kinds: *bāsmati* (white), *jhingni* (red), *veri* (red), and *chhuhāru*. The first three kinds are grown on irrigated and manured lands. *Chhuhāru* rice is sown on unirrigated *bakhal* land. The yield is generally small.

GRAM: It is grown on a small scale in Bilaspur district and some other areas of lower elevation.

SUGARCANE: It is grown in the valleys adjoining the plains, particularly in the Paonta Valley and parts of Sirmur and Sunder Nagar in Mandi district. It is usually sown in February to March and harvested from November to February.

POTATO: It is the most important cash crop of Himachal Pradesh. The rural economy of the State depends largely on the seed potato produced for export which meets nearly 20 per cent. of the total seed requirements of the country. The production is concentrated mainly in Mahasu district, being more than 70 per cent. of the total quantity of seed potato produced in the State. The average annual exports are of the order of 450,000 maunds bringing an income of about Rs. 67·5 lakhs to the growers.

Two crops of potato are raised annually, but the summer crop is more important as 98 per cent. of the total potato area is devoted to its cultivation. The sowing time for the summer crop varies from January to April according to variations in altitude. At lower elevations, the sowing season extends from January to February, while at higher altitudes it lasts from the end of March to the end of April. Most of the crop is harvested from middle of September to the end of November.

The average yield of potato from Government farms is as high as 100 maunds per acre, but the overall State average is about 45 maunds against the all-India average of 109 maunds. The yield of potatoes in Belgium is as high as 224 maunds per acre. The low yields in Himachal Pradesh are mainly due to the use of degenerated seed stocks, poor fertility of the soil, and inadequate use of farmyard manure and fertilisers.

5. *Bakhal Baharani*, land at some distance from the homesteads, scantily manured and bearing one crop a year of superior grain, either wheat or maize.
6. *Kultharni*, land on which an inferior crop such as *kulath* (*Dolichos uniflorus*) is grown every year or every other year.

This classification has been adopted in the regular Settlement. The first three classes have been called *Kiār* 1st, 2nd and 3rd, and the other three, *Barani* 1st, 2nd and 3rd.

That agricultural conditions vary in different parts of the State will be apparent when it is considered that the elevation at which cultivation is carried on ranges from almost plain-level altitude to over 10,000 feet on the mountain slopes. Some parts like the Chini tehsil are, moreover, beyond the range of the monsoon current, and consequently present special features of their own.

The time both of sowing and harvesting varies with the elevation of the fields. Spring crops are usually sown from the middle of September to the middle of December, and last up to the beginning of July. Autumn crops are sown from March to the middle of July, and reaped from September to the end of November. In the colder parts of Chini tehsil, where snow lies for a long time, there is only one harvest, and the spring and autumn crops are sown and reaped together, sowing being done in September to October and the harvest taking place in August and September. The principal crops grown are briefly mentioned below.

Rabi Crops. The principal *rabi* crops are wheat, barley, poppy, peas, coriander and lentils.

WHEAT: It is the principal food crop, grown mostly at lower and mid elevations. At higher elevations it is sown in September, slightly earlier than in the lower elevations where the cultivation practices are similar to those obtaining in the adjoining parts of the Punjab. Agricultural operations begin after the harvest of the *kharif* crop. Generally two to three ploughings are given, and the seed is sown broadcast.

Wheat is taken generally as a rain-fed crop as very limited irrigation facilities are available. The crop matures for harvest from mid-April to mid-May at the lower elevations, and from May to July at the higher altitudes. The yield varies from 8 to 10 maunds per acre, and is poor in comparison to that obtained in the plains.

BARLEY: Sown at the same time as wheat, but ripening a month earlier. It is generally grown on *bakhal* lands.

POPPY: Sown from the end of September to the middle of November; ripens on low lands in April and on high lands in May.

Chala, Kalao (field peas): Sown in November and harvested in May and June.

Dhaniā (coriander): Usually sown together with poppy and reaped with it.

CHAPTER XX

FARMING COMMUNITIES

ALMOST the entire population of Himachal Pradesh may be described as agricultural. Ninety-six per cent. of the people live in villages; ninety-three out of every hundred are dependent on agriculture. They have small holdings — the average size is 3·6 acres. The below 10-acre holdings constitute 90 per cent. of the total, and cover 80 per cent. of the area. The people are generally owner-cultivators; the rentier class hardly forms 1 per cent. of the agricultural population. In Mahasu, which is the most thickly populated district in the State, 94 per cent. of the agriculturists are self-cultivators, 4 per cent. tenants, 1 per cent. agricultural labourers, and 0·5 per cent. rent receivers.

Agriculture in Himachal Pradesh generally means subsistence farming. Even so, it hardly suffices for the cultivator's simple needs. A survey carried out in 1950 showed that 48 per cent. of the working members of land-owners' and tenants' families pursued some subsidiary occupation to supplement the income from land. The scope for employment as agricultural labour being very little, many of them had taken to rearing of sheep and goats, lumbering in the forests, weaving, and selling milk and vegetables.

Of the active workers, about 57 per cent. are men, 41 per cent. women, and 2 per cent. children. Thus, women are almost as important as men in the agricultural work. In fact, in the case of hired labour the wages of women are higher than those of men. While the daily wage of a man varies from 10 annas to Rs. 1·75, a woman would get anything from Rs. 1·25 to Rs. 1·80.

The erstwhile States of the Western Himalayas, which have now merged into Himachal Pradesh, had been comparatively free from invasions and infiltration of outside races. The mountain barriers isolating them from the neighbouring countries made their conquest almost impossible. It is said that when a large Tibetan army invaded Rampur-Bushahr, the native Raja repulsed it with only a small force by hurling stones at it from a strategic elevation. This natural security against invaders explains why there had been few dynastic changes among the ruling classes. As Sir Denzil Ibbetson has said, "there exist in the hills, Rajput dynasties with pedigrees more ancient and unbroken than can be shown by any other royal families in the world". Even the common farmers in most cases continue to till the very lands which their forefathers had been tilling from time immemorial.

The chief source of the history of Himachal is *vansavalis* or genealogical rolls of the ancient rulers. Such documents are abundant in the western hills and are carefully preserved. Sir Alexander Cunningham has drawn

Cheena (*Panicum miliaceum*), a species of millets: Sown in July and harvested in September. It is usually cooked like rice.

Kangni (*Pennisetum Italicum*), a millet variety: Sown in May, and harvested in September. It is eaten boiled like rice, and cannot be made into bread.

Bāthu (*Amaranthus*): Sown at the same time as *kangni*, but harvested a little later. There are two varieties, red and white, but the grain yielded by both is white. It is eaten as bread, and the leaves are pulled for greens when young. It is sown on *bakhal* and *karali* lands.

Kodā (*Eleusine coracana*), a species of millet: Sown from April to June, and harvested in October. It is either made into bread, the *chapātis* being called *kadrolī*, or eaten in porridge (*laphī*) form.

Māsh (*Phaseolus radiatus*): Sown in July, usually on *bakhal* land, and harvested in October. It does not grow on higher elevations. Several varieties of food are prepared from it.

Kulath (*Dolichos uniflorus*) a variety of pulse: Does not grow on high lands, and is usually sown on the *bakhal* of the lower villages. It is sown in July and reaped at the end of October.

Bhart (*Cajanus bicolor*), a pulse: Sown and cut at the same time as *bathu*. It is usually eaten as *dal*, but sometimes is also baked into *chapātis* which are called *bhartoli*.

Rangan (*Dolichos sinensis*), a pulse: Generally sown in the poppy fields in June and July and cut in September to October.

GINGER. Himachal Pradesh is best suited for the cultivation of disease-free ginger seed, but the acreage under the crop is small. It is grown mostly in Sirmur and Mahasu districts.

Bhang (*Cannabis sativa*): Grows wild on wasteland near the houses, and is also sown sometimes. It is cut green in October and tied in bundles which are kept on the house roofs. In the winter, the bark is pulled by hand and twisted into rope. The leaves are rubbed by hand and smoked.

Fruits. Apple, pear, peach, apricot and plum are the principal fruits grown in the State. Their cultivation is mostly confined to Kotgarh, Kotkhai suburbs of Simla, Arki, Solan and Rampur Bushahr in Mahasu district. Citrus fruits are also grown at places, mainly in the sub-montane parts of Sirmur and Mandi districts.

The plantation of fruit trees, especially of apple and citrus, is now increasing progressively. But poor communications and inadequacy of transport facilities stand in the way of development of horticulture in the State. Plantation of fruits like plum, peach, cherry, apricot and pear which are easily perishable, has not made much progress for this reason. Their production is confined to only areas around the towns of Simla, Solan, Mandi and Chamba.



FIG. 75. A woman of Theog, Himachal Pradesh



FIG. 74. A group of villagers from Chini, Himachal Pradesh

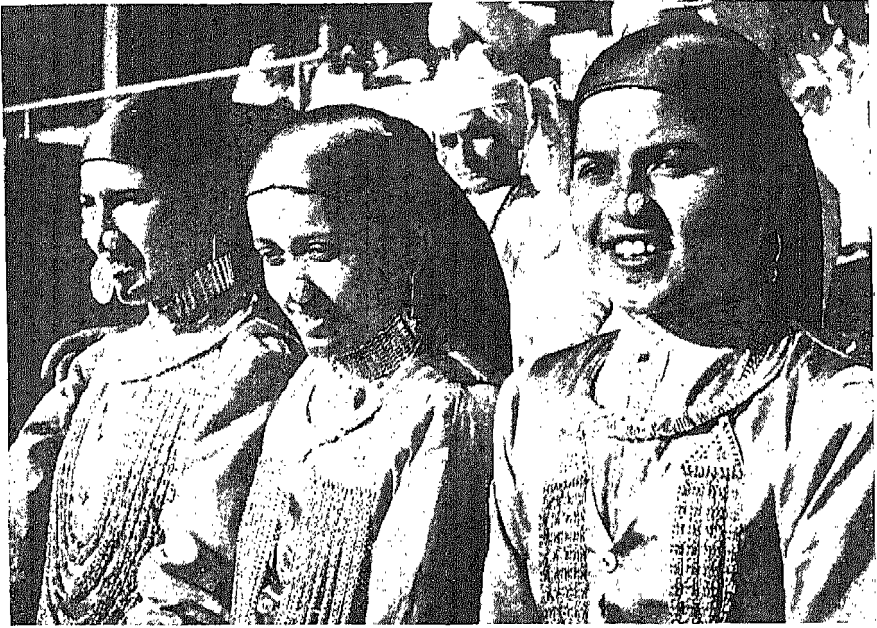


FIG. 77. A group of women from Simla Hills, Himachal Pradesh



FIG. 78. A couple from Chamba in traditional dress



FIG. 76. A young girl of Kotgarh, Himachal Pradesh

Rajputs. The major clans of Rajputs are Guleria, Manhas, Jamwal, Mahla, Lohakhariya, Padhiar, Tondola, Ravet, and Niryal. They have descended from the royal families of the erstwhile States.

The Rajputs fall into an upper and a lower class. The former do not themselves plough their fields; their farm work is done either by hired servants or by tenants who pay them *batai* or fixed rent. The latter work in their fields, and are called *halbahu* or plough driver. However, under the compulsions of the present-day economic struggle, the majority of the land-owners have been forced to take to agricultural work.

The Rajputs are indifferent cultivators, and are extravagant and indolent. Many of them are deeply in debt. They are strict and orthodox in their customs, and prefer service to other occupations.

Brahmins. The Brahmins of the State may be divided into three groups. The first group claims to be descended from those Brahmins who accompanied the Rajput Rulers from the plains. They are pure Gaur Brahmins and form the chief priestly caste. They avoid agriculture and refuse to handle the plough. Some have taken to trade and service.

The second group comprises of Sarsut and Kanyakubj Brahmins. They are descended from the original Brahmin inhabitants of the State but have now begun to intermix with the Gaurs or Brahmins of the first group. They accept wives from the agricultural class of Brahmins also. They are less grasping and quarrelsome than the Gaurs, are also much less rigid in the observance of caste rules, and would eat and smoke with most of the other Hindu castes, such as Banyas, Khatris, Suds and Kaiths. Unlike the Gaur Brahmins they eat meat also.

The third group comprises the agricultural Brahmins who are looked down upon by the higher classes. These Brahmins are indifferent cultivators but owing to their miscellaneous earnings as *pujaris* of the village gods they are generally in fair circumstances.

Kanait. Kanait form the bulk of the agricultural community, and are by far the most important tribe in the State. There are various theories about their origin. Some hold that they are descended from the earliest Aryan invaders of the Himalayas who came from beyond the Hindu Kush, while others believe that they belong to the line of the ancient thakur Rajputs who settled in the Himalayas at a very remote period. A third view is that they are the offspring of the Rajputs who came from the plains and married hill women. But the most commonly accepted view is that the Kanait were Rajputs at some time or the other. They married the widows of their brothers and consequently were considered *kunit* or violators of tradition. They were ostracized by the Rajputs, and came to form a tribe of their own which was called Kanait.

The Kanait are divided into two groups, Khasias and Rahun, but this distinction is disappearing now. There are said to be about 80 sub-castes of Kanait, the more important being Nunhal, Salwani, Chamial, Balual,

mostly on them for his account of the Punjab Hill States which is one of the most valuable sources of information about this region. There are also detailed references to some of the Hill States in the travel accounts of Hiuen Tsang (629-644 A.D.), William Finch and Thomas Coryat who came to India during Jehangir's reign, Francois Bernier whose visit took place in Aurangzeb's time, Foster (1783 A.D.), Moorecroft (1820-22), and Vigne (1835-39).

The principal language of the Chamba area is Western Pahari, in five distinct dialects. Of these, Chambiali or Chamiali is spoken in Chamba town and its immediate neighbourhood; Gadi or Brahmauri in the Upper Ravi Valley; Bhattiali in Bhattiyat; Churahi in Churah and the northern part of the Sadar area; and Pangwali in Pangi. In Chamba-Lahaul the dialect spoken is Lahuli which has some affinity with Tibetan. Chamiali, in a modified form, is the only dialect used in writing. The script is called Takari in Chamba, and is derived from the Sharada which is still in use in Kashmir and which formerly was prevalent throughout the Punjab hills. Urdu is in use in the courts, and is fairly well understood in every part of Chamba. Hindi is common among the Pandits of the region.

The dialects of the Simla hills are numerous. Of the 22 dialects distinguished, 18 are Aryan, the remaining four being Tibeto-Himalayan.

Bilaspur has six dialects: (i) North-East Bilaspuri (north-east of Kumar Hati), practically identical with Mandeali which is spoken throughout the greater part of Mandi and Suket; (ii) North Bilaspuri (north of Kumar Hati) very like Mandeali; (iii) West Bilaspuri which resembles Punjabi; (iv) Central Bilaspuri (Bilaspur town and surrounding area), somewhat like Punjabi; (v) South-West Bilaspuri (south-west of Bilaspur town); and (vi) Dami (east and south-east of Bilaspur town), both resembling Mandeali and Kangri, but more like the former than the latter.

The dialects common in the Baghati area are: Baghati, a dialect of Hindi; Kiunthali which resembles Baghati, but is much more widely spread, i.e., from Arki in the west to beyond Rohru in Bushahr and South Jubbal in the south-east; and Kot Gurui, which closely resembles the dialect of Outer Seraj in Kulu and that of Rampur-Bushahr. The dialects in Jubbal show Kiunthali influence. The dialects of West Bushahr are called Kochi. These have a general inter-resemblance, but may be divided into Northern and Southern dialects, the Northern resembling Kot Gurui, and the Southern Kiunthali. Tibeto-Himalayan dialects are spoken in upper Bushahr. Tibetan, a dialect of Western Tibetan, is common in the east of Bushahr near the Tibetan border.

PRINCIPAL COMMUNITIES

The principal farming communities of Himachal Pradesh are the Rajputs, Brahmins, Kanaitis, Kolis, and Rathis. A brief description of these is given below.

rice, and wheat according to their means and opportunity. Tea is commonly consumed by all classes.

DRESS

The dress of both men and women differs in various parts of the State as the following account will show.

In Rohru tehsil and Pabar Valley, the men wear coat, *chapkan* (frock), trousers, *angu* (i.e., *angarkā*), *gachi* (girdle), and cap. The women wear *chuba* which corresponds to *chapkan*, *pagti* (sort of gown), *dorā* (sheet), trousers, *dhātu* (square cloth head dress), *thālī* (sheet), *gachi*, and *selī* (goat-hair rope wound round the waist). In Rampur tehsil, the men wear *chopta* (*chapkan*), trousers, *gachi*, cap or turban, *chaddar*, coat, waistcoat, and *kurta* (shirt); and women use *pagti*, *choptā*, *gachi*, *dhātu*, and *biswai* (gown). In Chini tehsil, the dress of men consists of *chuba*, round black cap, *gachi*, trousers, coat, shirt, waistcoat, and *chadru* (blanket). The women wear *doru*, *choli*, *gachi*, *topu* (cap), and *pattu* (blanket).

The material of these garments is grey or brown *pattu*. In Kanawar the clothes of both sexes are made of a white blanket stuff, which gives a very picturesque effect in conjunction with a round dark-brown bonnet. The Jads or inhabitants of the Tibet border have their cloth dyed dark-red or dark-brown, and the caps of the men turn up at the edges in Chinese fashion.

The usual kind of shoes worn are those of which the uppers are cloth and the soles leather. On the Tibetan borders long cloth boots are worn.

In Chamba, the men wear a long tunic reaching below the knees, with a cloth waist-band, tight *paijāmās*, and a small *pagri* set on the top of the head. The women wear a gown with a short bodice reaching to the waist, and below this the skirts fall away in numerous folds, almost touching the ground. This is called a *pashwāj*. The folds are sometimes so full as to measure 100 yards in circumference (30 to 40 yards are common). The *pashwāj* is worn only out of doors and on special occasions. For ordinary wear a *pairahan* is used. On the head is a *chaddar* or *dopattā* of any material which the wearer can afford; trousers called *suthan*, are also worn.

ORNAMENTS

The men in Chamba wear *kanthā* or necklace; *kangan* or bracelet; *bauhniā*, worn round the arms; *bālā* or ear-ring, *chhallā* (*anguthi*) or finger ring; *murki* or ear-ring; and *mālā* or neck garland. The women wear as many ornaments as they can afford, especially on gala days, e.g., *bālī*, *jhumku* and *pharālū* for the ears, *chauk* for the head; *bindli*, for the brow; *bālū*, *balāk*, *chutki*, and *latkan* for the nose; *mālā* and *chaumpkali* for the neck; *sambih* for the breast; *kangan*, *gokhru*, *ponchi*, and *churā* for the wrist; *band* for the forearm; *arsi* for the thumb; *chhallā* for the fingers; *pazele*, *kari* and *phullu* for the feet, ankles and toes.

Barahlu, Malohi, Kandarim, and Swal. Some of the caste names are said to indicate the name of the founder of the house; others indicate the place from which the ancestors of the house had migrated.

The Kanaitis are fairly good and careful cultivators. Most of the husbandry work, except for ploughing, is done by their women who are industrious and of a cheerful disposition. Kanaitis are generally honest, peaceful and law abiding people.

Kolis. The Kolis are said to be of an aboriginal extraction and are considered a low caste community. Most of them cultivate land as tenants. They are more industrious than the Rajputs and Kanaitis.

It is believed that the Punjab hills were once inhabited by a true Kolian people who belonged to the same stock to which the Kols of Central India and Bihar belonged, and that the present Kolis are very probably their descendants. It is pointed out that 'da' the Kolian word for water, is still used in many parts of the Simla hills. A line of Kolian tribes extends from Jubbalpur to at least as far as Allahabad, whose dialects have many identical words, and who have many common traditions.

The more important sub-castes of the Kolis are Dumna, Kumahar, Gujar, Lohar, Vohra, Thakar, and Nai. Of these, the Vohras deserve special mention. Most of them are merchants, clerks and bankers. By dint of their intelligence and astuteness they have attained considerable influence in the State. They do not allow widow remarriage, and also recognize the system of marriage by exchange called *Battā Sattā*. They are comparatively well-to-do, and as such enjoy esteem and consideration.

Rathis. The Rathis of Bilaspur are believed to be the descendants of degenerate Rajputs and Kanait mothers. They marry their girls to the inferior classes of Rajputs. Their sub-divisions are Mahrani, Baroti, Bendri, Dhuli, Bharol, Lohtri, Rajnal, Gharial, Sin, Basahri, Ikthania, Tania, and Kharial.

FOOD

Maize is the staple food of the farmers. It is baked into *chapatis* and eaten with *dāl*, vegetables, milk, etc. Wheat and barley flour are also used, also *chinai*, which is cooked like rice. In Pangi the people eat barley, *elo* (*rye*), wheat, buck-wheat, *suil*, and *chinai*. *Sattu* is made of parched *suil*, *elo* or barley. Barley, *elo*, *phullan*, and *bres* are ground into meal for bread; also wheat, of which, however, not much is used. The *roti* is cooked in the usual way, sometimes with oil or *ghee*. Meat is eaten chiefly in winter, being too dear for common use. *Sāg*, *dāl* and potatoes are used extensively.

The zamindars eat three times a day. The morning meal is called *nuhari*, the midday one *dopai*, *rasoi*, or *shil*, and the supper *beali* or *rat-ki-roti*. *Nuhari* consists of bread. At noon either *bhāt* (boiled rice) or bread is eaten, and for supper boiled rice or bread as means permit. Well-to-do people eat rice, wheat, *maidā*, *bāsmati* rice, meat, etc. Poor people eat maize, *kodra*, barley,

CHAPTER XXI

VILLAGES AND VILLAGE HOUSES

IN a mountainous country like Himachal Pradesh, much of the land is necessarily unsuitable for cultivation. Large tracts are covered with dense forest, while the slopes of the hills are often so steep as to render farming operations impossible. Also in many places the soil is unproductive. The villages are found wherever an area of arable-land exists, sufficient to support a few families. Occasionally, a solitary house may stand on a small patch where there is no room for more. As a rule, however, there are several houses together, though the villages are always small. They are larger in the bottom of the valleys than on the slopes where the soil is poor and less productive.

Each village stands in the midst of its own area of cultivation. In the flat lands the houses are generally on the same level, but higher up they are arranged in tiers one above another. In the higher mountains, great care is taken in the selection of village sites to avoid risks from falling rocks and avalanches.

The houses are generally square or rectangular in shape. The favourite aspects are towards the east or west, facing the rising or setting sun, but this feature is often disregarded. A northern aspect is usually avoided.

In the lower parts of Simla hills, the house of an ordinary zamindar is usually one-storeyed, white-washed, and thatched, but this type is not found in Bushahr. In the Sutlej Valley about and below Rampur, the houses are similar to those of the villages around Simla, two-storeyed and roofed with slates or shingles. Higher up still, houses have three storeys, of which the lower (*ogra*) is used for the cattle, the middle (*phar*) as a storehouse and winter sleeping room, and the upper, which is surrounded by a broad verandah (*dafi*), as the general living place of the family. The roofs of these buildings are curved and sloping. In Kanawar, the two-storeyed house is the usual type, and this generally has a flat roof.

Furniture is of the simplest description. Bedsteads are rarely used, and people sleep on the ground on goat hair mats. In the more remote areas pottery is not easily obtainable, and vessels for water and other liquids are made of wood.

The housing pattern in Chamba is more variegated. In Churah area the houses are one or two-storeyed, with a flat roof, called *saran*. Those of the Sadr tract show great variety, the flat roof predominating in the northern, and the *bhordar* or slanting roof in the southern parts. In Bharmaur the houses are generally two or three-storeyed, and are built like bungalows with projecting verandahs above. The lower storey is reserved for the cattle.

FARMING COMMUNITIES

In the Simla hills the women have a brass brooch called *pichak* to fasten their gown in front, and they wear a great quantity of ornaments, of silver and pewter. The men usually carry a piece of steel for striking fire, ornamented with brass, hanging from the right side (*chakamak*), a knife, a hatchet, and a pipe in the girdle. The pipes are usually made of iron and sometimes inlaid with silver. Both sexes are fond of flowers which they insert in their caps.

FARMERS OF INDIA

grouped together. Where there are more than one caste in a village, sometimes the castes are separated into two villages; sometimes they all live in the same village. All villages have temples as well as two or three springs within walking distance. Where there is no spring water sometimes a tank is dug.

and sheep, the family occupying the upper storey. During summer the cattle are sent to the pasture, and the lower storey is then empty. A one-storeyed house is often shared by the family with the cattle, which are penned off by a wooden partition. In Pangi the houses are always two-storeyed with flat roofs. In summer the family occupies the upper storey and the cattle are sent to the pastures. In winter the cattle are penned off by a spar partition at one end of the living room in the lower storey, the family occupying the other end.

In Bhattiyat the zamindars live in one-storeyed *kothas* or huts, or in two-storeyed houses, called *bhordar*, roofed with wood or slates or some khar grass. Well-to-do people have separate houses for their cattle, but the poorer classes sometimes pen their cattle in the house, screening them off by a partition. Others pen the cattle in the lower storey, and live in the upper storey. The entrance of the house faces the road without regard to its aspect. Bhordar houses are built with a space towards the road, and a verandah or *angan*. *Kothās* are usually built touching one another without a space for the road, but some build them leaving space for the *gali* or street. Good sites are chosen for houses, and in selecting them care is taken that they are not on a damp or low-lying spot. The earth of the site is shown to the village Pandit, and the house built after consulting him, its length and breadth being fixed under his directions. The houses are generally neatly constructed, being built of stone and roofed with slates, but sometimes they are only wattle huts.

In other parts of Chamba the village houses are strongly, if roughly, built. The walls are constructed of a framework of wood filled in with dry masonry and carefully plastered. When the roof is flat, it is composed of wooden rafters with small twigs or any other suitable material spread over them and on this frame is laid a thick layer of pine leaves and several inches of earth. When slanting, the roof is usually of shingles, but if slates are procurable they are used. There is only one door and no window, so that the interior is dark, and as the cattle are often penned up in one corner, living is anything but pleasant. The people, however, do not seem to mind the discomfort, and living as they do so much out of doors, it probably does them little harm. Generally, there is a verandah which adds to their comfort. A ladder, formed of a beam cut in niches, leads up to the *saran* or flat roof, where in summer most of the work is done. The smoke escapes by a hole in the roof, partly covered by a stone slab, to prevent the rain and snow from entering. Beehives are often fixed in the walls. The hive is a log of wood, hollowed from end to end, and laid across so that one end is outside and the other projects a little into the interior. In the outer end is a small hole by which the bees come and go, and the inner end is closed with mud but can be opened at any time to extract the honey.

The fields of the inhabitants of Bharmaur tehsil are heavily terraced on account of the steep slopes of the hillside. The houses in each village are



FIG. 81. Spinning wool is a popular pastime with the women of Himachal Pradesh



FIG. 79. A village in Himachal Pradesh. Note the carefully terraced fields

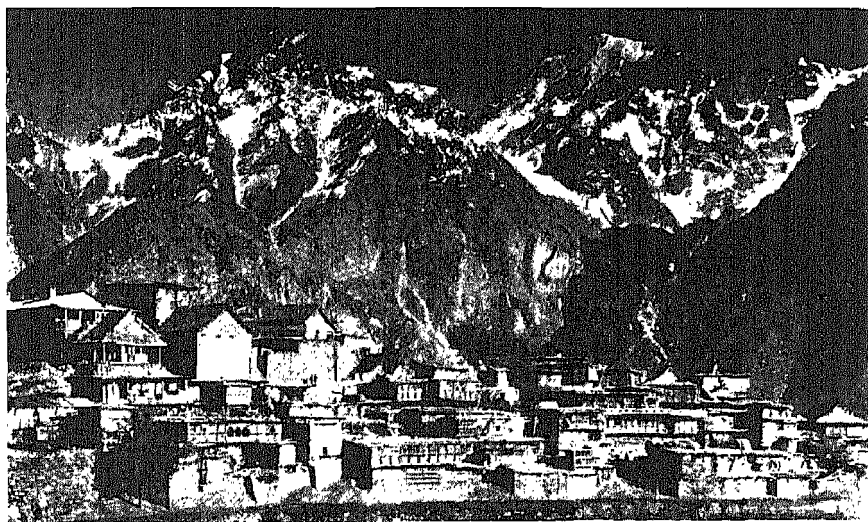


FIG. 80. The picturesque village of Chini with snow-covered peaks in the background



FIG. 83. Folk-dancers of Simla Hills, Himachal Pradesh



FIG. 84. A group of Nati dancers

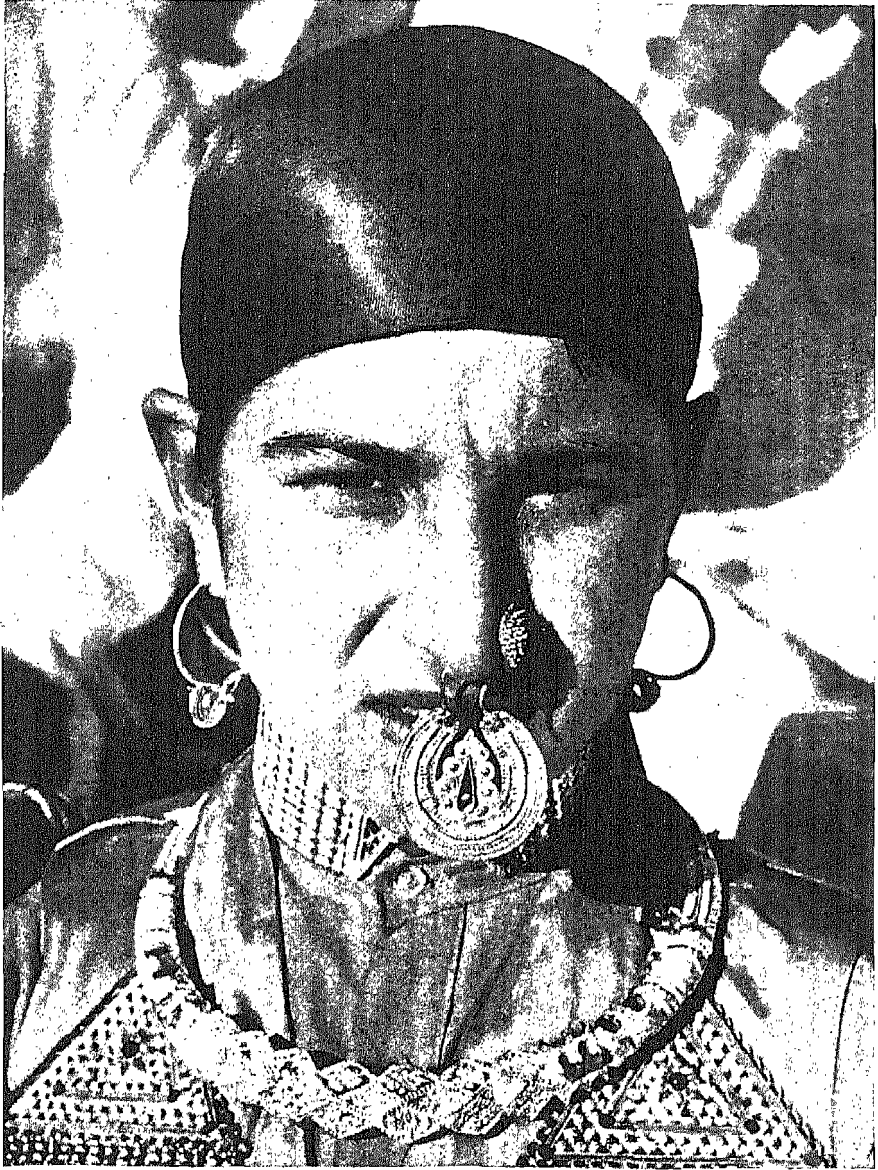


FIG. 82. Typical jewellery worn by Himachal women in Simla Hills

The early history of Sirmur is mingled with the legend that a woman versed in necromancy presented herself before Raja Madan Singh, and boasted of her skill. The Raja promised her half his kingdom if she could cross the Giri river and return by means of the acrobat's rope. The woman accepted the challenge, crossed the river, and was returning when the rope was cut at the Raja's orders. She plunged into the river. However, her curses caused a flood which swept away the town and wiped out the Raja and his kith and kin. A pierced stone in Sirmuri Tal is associated with this legend.

The most popular shrine in Mandi is that of Bhut Nath representing Shiva as Lord of Creation. According to a legend, long long ago, cows grazed where the temple stands. One of the cows failed to give milk for several days. The owner kept a strict watch and discovered that she gave the milk to a stone. This news reached Raja Abar Sen, who was ordered by Shiva in a dream to dig beneath the stone. This was done, and the image now worshipped was discovered. The foundations of the city were laid with the temple as a focal point.

In Himachal, Shiva, Devi and Nag (serpent) have the largest number of worshippers. Their shrines are frequent throughout the whole State, even to the farthest points in Pangi and Lahaul. Nag and Devi are worshipped for the protection of the cattle, the field, and the family. Thakur and Shiva are worshipped in the morning and evening; Devi on Tuesdays; Nag on Saturdays. Vishnu, though commonly worshipped, has but few shrines in the State. The lower castes worship in the same fashion as the higher ones do, but the Chamars in Simla are Ramdasi Sikhs while the *Mehtras*, who all came originally from the plains, are, like their brethren in the Punjab, followers of Bala Shah and Balmiki. The few Sikhs in the State do not differ from these in the plains. The Buddhists observe many of the practices of the Nag and Devi cults. Pirs or Muhammadan saints are widely venerated by all classes of the people. They are worshipped on Thursdays, and also on special occasions when any wish has been attained.

After Rama and Krishna whose worship is closely associated with that of Vishnu, the most popular of the minor deities are Ganesh, Hanuman and Bhairon. Ganesh is the well-known elephant deity, the remover of difficulties and impediments. He is invoked at the commencement of a journey or of work of any kind. Women are particularly devoted to his worship. His followers fast in his name on the nineteenth day of each month, more especially in Magh. He is also known as Sangat Deota. The worship of Hanuman or Mahabir is closely connected with that of Rama. He is represented as a red coloured monkey with a long tail, and is worshipped by all castes. He is particularly regarded as a patron of the wandering acrobats. A small shrine of Hanuman is often erected near the site of a new well under construction to safeguard against accidents, and also to ensure that the water would turn out sweet.

CHAPTER XXII

FOLK CULTURE

THE people of Himachal are bound together by ties of common religion, traditions and culture. The large majority is Hindu by faith, devoted to traditional gods for whose worship more than 1,300 temples exist in the State. Each village has also its own *devata*, which is propitiated to obtain timely rain or good harvest or other favours. Though Buddhism has considerable following in the border areas of Chini and Pangi which are in close proximity to Tibet, it is of an impure form, being mixed up a good deal with different cults of Hinduism. Broadly speaking, therefore, the entire region of Himachal may be regarded as permeated with Hindu beliefs and customs.

The land is rich in legends, rituals, ceremonies and folk-lore, which have endured through the centuries uncorrupted on account of the inaccessibility of the hills in the past. These run through and dominate the whole social life of the people, and possess a freshness and charm which are nowhere to be found in the sophisticated world.

The legends relating to gods and goddesses are numerous. In Mindhal village, some 78 miles from Chamba, the peasant will never use two oxen to plough his fields. This has its origin in a legend relating to the temple dedicated to 'Mindhal Baani' Goddess. Long ago, on the site of the temple stood a house inhabited by a widow and her seven sons. One day, while the sons were out ploughing and the widow was cooking, a black stone emerged from the earth in the 'Chula'. She tried to push it down but in vain. Realising suddenly that the stone was a visitation, she told her sons that a Devi had appeared in the house. The sons taking it lightly, replied "Would the Devi give us a grant or enable us to plough with one bullock only?". Hardly were the words spoken when the sons and mother were turned to stones. Since then only one bullock is used for ploughing, and the whole village is dedicated to the Devi. During the month of Bhādon a *yatrā* is held to celebrate the appearance of the Devi. Hundreds of sheep and goats are offered as sacrifice.

The seven floating islands and the Riwalsar lake in Mandi must have attracted attention since time immemorial, for innumerable legends are current as to their origin. According to Buddhist mythology, a Bhikku meditating on the banks of the lake was visited daily by the royal princess who held him in great esteem. The Brahmins out of jealousy complained to the king that the Bhikku had seduced the princess, whereupon he put them both to death. A few days later, he realised his mistake, and at the same time the floating islands appeared on the lake. They represent the spirit of the Bhikku and the princess.

sister Guggari, a deified heroine, his Wazir, Kailu, and others. The rites of worship are much the same as those observed at Devi temples.

There are various religious customs and superstitions connected with agriculture. Cultivators consult Brahmins as to the best time to commence ploughing for the *rabi* and *kharif*. In some places the first fruits of the crop are offered to the deities. If the crop is a good one, goats are sometimes sacrificed. Another ceremony at the beginning of a harvest is to take a large damper of wheaten flour, break off the four corners and to throw them into the four corners of the field, and thereafter to divide the remainder among the reapers. If two cobs sprout out of one ear it is auspicious, and if a bird builds its nest in the ears of corn they are not cut until it has left the nest. A he-goat is sometimes sacrificed to the ear with two cobs. It is a good omen if there is sunshine on the Sankrant of Baisakh, and rain on the Sankrant of Hār and Sāwan. Snow-fall in the month of Poh constitutes a bad omen.

Ploughing is forbidden on Sankrant, Amawas, Janam Ashtami and Shivratri. It is a sign of famine if it does not rain on the 4th Chet and 4th Baisakh, or if it is not sunny and bright on 2nd and 8th Jeth and 9th Hār, or if it does not rain very heavily on 8th Sāwan and 8th Bhadon. On these latter days every star seen in the sky means a loss of a thousand maunds in the next harvest.

Like all hill people, the inhabitants of Himachal Pradesh have to struggle very hard for a living, and like all hill people they forget their hard life in laughter and songs. They are a happy joyous people who love to dance and sing on the slightest excuse. For them any little thing is good enough to be celebrated with a mela, enables them to show off their finery, to exchange gossip, to buy pretty knick-knacks and above all to dance and sing.

There are innumerable fairs held throughout the spring and summer when folk-dances are performed to the strains of the flute. Most of these melas are in commemoration of some event whose origin is lost in the legends and, therefore, have a religious significance. Of the religious fairs the most important ones are held at Triloknath. The 'Char' or 'Kun' fair celebrates the coming of spring. Three masks symbolizing the demon Kulnza, and man and woman — Gami and Mexmi — are taken out in procession. The Demon is chased by Gami and Mexmi mask-bearers. It is a spontaneous expression of the villagers' joy at the coming of spring. Cold and hardships have ended, and they can look forward to work and play in the sunshine and enjoy nature's beauty and bounties.

The Pori festival is essentially a religious one. Pilgrims from Tibet, Lahaul, Ladakh and other parts of India come to it during the months of July and August. It is a simple dignified ceremony, which consists of lighting little earthen lamps in front of the image and reciting texts from the Buddhist sacred books. In front of the image is a huge candle which burns all the

Closely connected with the worship of Shiva, and far more widely spread, is that of his consort, Devi. The goddess goes by many names, Durga, Kali, Gauri, Asuri, Parbati, Kalki Mahesri, Bhawani Asht-Bhuji and numerous others. According to the Hindu *shastras* there are nine crores of Durgas, each with a separate name. The divinities Shitla, the goddess of smallpox, Mazani and other goddesses of diseases, are but manifestations of the same goddess. She is called Mahadevi, the great goddess, Maharani, the great queen, and Devi Mai or Devi Mata, the goddess mother.

The days most holy to the Devi are the first nine days of the waxing moon in the month of Chet and Asog locally called Nauratras. Some people fast in the name of the Devi on the eighth lunar day (*Ashmi*) of every month, and perform special ceremonies on that day. Sometimes they light lamps (*jot*) and when a Brahmin has read the *Devi Path*, will prostrate themselves before the lamps. Sometimes it is customary to distribute rice and sweetmeats on this day to unmarried girls, and goldsmiths will often close their shops in honour of the day. Devi is personified in a girl under ten years of age, and offerings are made to her.

The Nag shrines are very numerous, and there are also Nagni shrines, but the latter are not common. The image in these shrines is usually of stone in human form with the figure of a snake entwined around it and a serpent canopy rising over the head. The shrine also contains figures of snakes in stone and iron, with a *tirsul* or trident, a lamp, an incense holder, a mace, and the iron chain with which the *chela* scourges himself. Springs of water are believed to be under the control of the snake godlings. In some parts of the hills, to such a degree are springs and wells associated with snake influence in the minds of the people that Nag is the name in common use for a spring of cool and refreshing water. A spring will usually be found in proximity to a Nag temple. Many of the Naga godlings are believed to have the power to grant rain, and in times of drought they are diligently propitiated. *Jagras* or vigils are held in the temples, incense is burnt, and sheep and goats are offered in sacrifice.

The deified hero of the Mundlikh cult of the Rajputs is the valiant Gugga Chauhan, who lived at Garh Dandera, near Bindraban, during the days of Prithvi Raj, the last Hindu King of Delhi. Gugga is said to have fought many battles with the Muhammadans, and in the last his head was severed from his body; hence the name *Mundlikh* (from *munda* head, *likh* a line). He is said to have continued fighting without the head and to have disappeared in the ground, only the point of his spear remaining visible. The legend is sung to the accompaniment of music by the hill bards, and with such pathos that their audiences are often moved to tears. Mundlikh's death is supposed to have taken place on the ninth day of the dark half of the moon in *Bhadon*, and from that date for eight days his *shrāda*, called *Guggnath*, is observed every year at his shrines. He is represented by a stone figure of a man on horseback, accompanied by similar figures of his

year round, even when the temple is closed during winter. Relations and heirs of the dead present one of his or her favourite articles to the temple. The visitor can see Lamas in their flowing saffron robes mingling with the gaily dressed people.

The most interesting of the fairs are Shivratri of Mandi, and the seasonal fairs held at the shrines of the gods of Upper Mahasu. In the first two, there is a panoramic congregation of the gods; in the Mahasu fairs, *thodas* (archery) and dances constitute the most enchanting features.

The folk-songs of Himachal are known for their charm. Broadly speaking, the tune follows the *Pahari rag*. The slow and poignant 'Jhanjoti', favourite of the exponents of classical Indian music is especially popular. Themes are religious as well as romantic. Some songs are in praise of Lord Shiva, Rama and the local gods and goddesses, while others sing of the love of Radha and Krishna. The pangs of the lovers' separation is a common theme. The glamour of Simla also appears in many a folk-song since it always attracts the young lovers of the surrounding hills. Their songs praise the sheep, and narrate the charm of the meadows, the mountains, the moonlit nights and the clear dawns. The singers express their gratitude to Nature for the green grass, the cool water of the streams and the bubbling music of the springs, which are her special bounties in the hills. The songs are rich in symbolism derived from nature. The pine tree, for instance, is the symbol of the lover in many a folk-song of this region.

With song goes dancing which is a living tradition in Himachal. It reflects the joy of community life and is a spontaneous performance, with no previous rehearsal or preparation. The green meadows and open spaces provide the setting.

The folk-dances are generally performed during the festivals that occur before or after the sowing or harvesting seasons. They also form a part of the worship of the village deity. There are both solo and group dances. The solo dance gives a glimpse of the classical as well. Of the Tandava kind of dances, the Prekshani is the most popular. The most important solo dance is the Natarambah. It is danced to the accompaniment of drums, clapping and singing. Two other kinds of solo dances are the Chhari and the Banthra. The most important open air dance, however, is the Nati. It is a community dance in which hundreds of people dance in a circle holding hands. The oldest of the dancers heads the chain, though nowadays the wealthiest or the most influential person may be given this privilege. The Nati dance is of seven kinds depending on the speed of the steps.

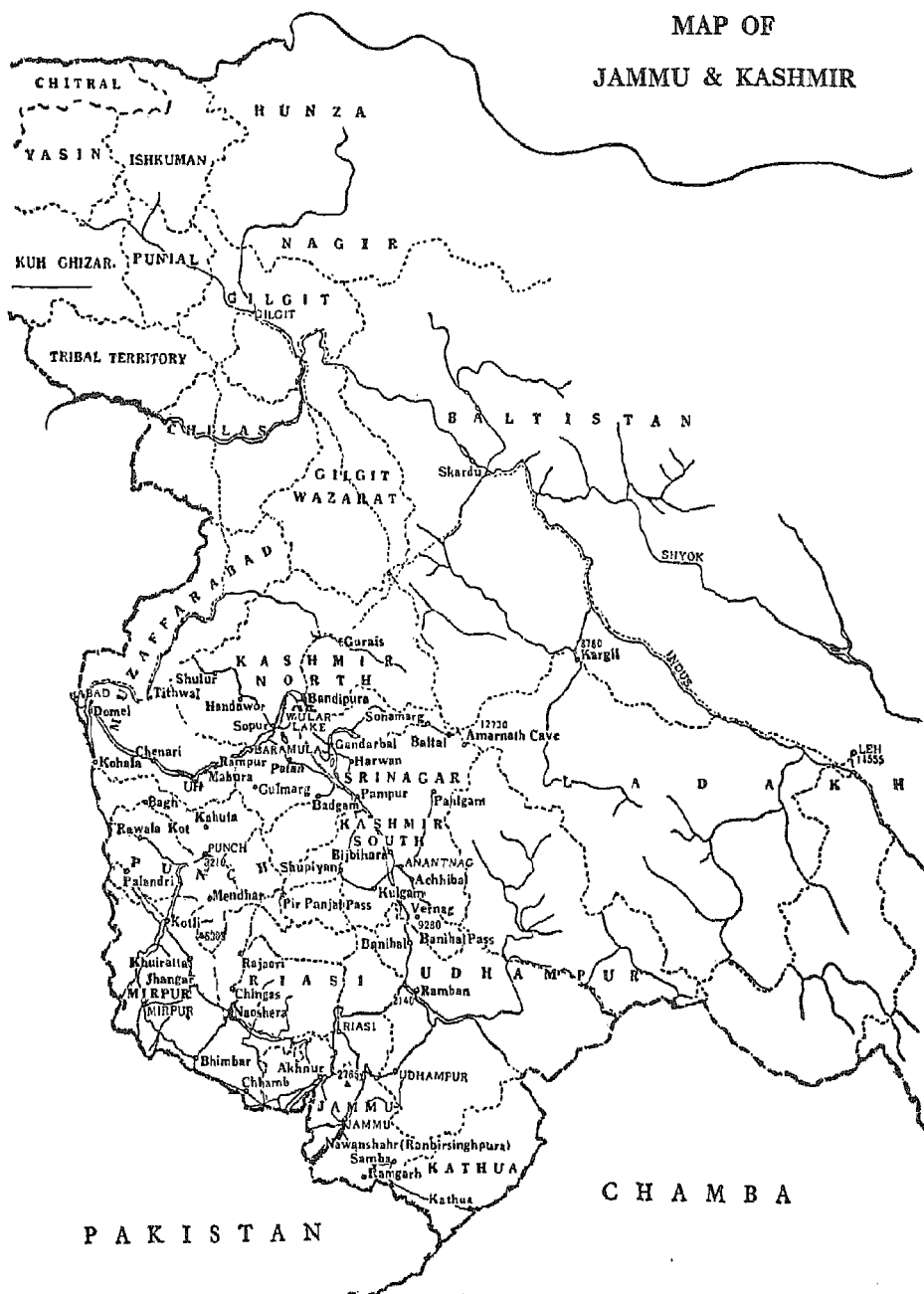


FIG. 85. Map of Jammu and Kashmir showing administrative divisions

SECTION III

JAMMU AND KASHMIR

A narrow strip of plain country, five to fifteen miles wide and cut up by numerous ravines, forms the boundary between the Punjab and Kashmir. It runs from the Ravi to the Jhelum, and towards the interior abuts on a region of broken ground and low hills which lie parallel to the general line of the Himalayan chain. These hills vary in height from 2,000 to 4,000 feet, and are largely composed of sandstone, being in fact a continuation of the Siwalik geological formation. They are sparsely covered with low scrub bushes, the *chir* (*Pinus longifolia*) gradually predominating as the inner hills are reached. Lying between them are a series of fairly well populated valleys or *duns*. Beyond the lower hills rise the spurs of a more mountainous area.

The zone of the Middle Mountains includes the range which forms the southern boundary of the Kashmir Valley, known as the Panjal range, and its continuation eastwards beyond the Chenab. This tract is about 180 miles long and varies in width from 25 to 35 miles. The portion lying between the Jhelum and the Chenab is formed by the mass of mountainous spurs running down from the high Panjal range which forms its northern limit. The Panjal itself, extending from Muzaffarabad on the Jhelum to near Kishtwar on the Chenab, is a massive mountain range, the highest central portion to which the name is truly supplied having a length of 80 miles with peaks rising to 14,000–15,000 feet. From the southern side a series of spurs branches out, which break the ground into an intricate mountain mass cut into by ravines or divided by narrow valleys.

The elevation of these middle mountains is sufficient, to give a thoroughly temperate character to the vegetation. Forests of Himalayan oak, pine, spruce, silver fir, and *deodar* occupy a great part of the mountain slopes; the rest, the more sunny parts, where forest trees do not flourish, is, except where rocks jut out, well covered with plants and flowers which resemble those of Central or Southern Europe. East of the Chenab river rises a somewhat similar mass of hills, forming the district of Bhadarwah, with peaks varying from 9,000 to 14,000 feet in height. These culminate in the high range which forms the Chamba and Ravi watershed in Chamba territory.

The third section of the south-western area bears a unique character in the Himalayas. It consists of an open valley of considerable extent, completely surrounded by mountains. The boundaries are formed on the north-east by the great central range which separates the Jhelum and Indus drainage, and on the south by the Panjal range. The eastern boundary is formed by a high spur of the main range, which branching off at about $75^{\circ} 30' \text{E.}$ runs nearly due south, its peaks maintaining an elevation ranging from 12,000 to 14,000 feet. This minor range forms the watershed between the Jhelum and the Chenab, separating the Kashmir Valley from the Wardwan Valley. It eventually joins and blends with the Panjal range about 16 miles west of Kishtwar. On the north and west, the bounding ranges of the valley are more difficult to describe. A few miles west of the spot from

CHAPTER XXIII

JAMMU AND KASHMIR

THE State of Jammu and Kashmir with an area of nearly 86,000 sq. miles extends from $32^{\circ} 17'$ to $36^{\circ} 58' N.$ and from $73^{\circ} 26'$ to $80^{\circ} 30' E.$ It is situated to the eastward of the Indus and westward of the Ravi. Separated from the Punjab frontier by just a fringe of level land, the country rises like a citadel of many storeys. Crossing the plinth of low hilly land in which is situated Jammu, the home of the Chibs and the Dogras, the traveller climbs the Pir Panjal range to reach the Valley of Kashmir. Crossing the steeper ranges of the Himalayas he passes to Astor and Baltistan on the north and to Ladakh on the east. Far away to the north-west lies Gilgit shadowed by a wall of giant mountains which run east from the Kilik passes of the Hindu Kush leading to the Pamirs and the Chinese territory. Westwards, the mighty maze of the mountains and glaciers sprawls into the Afghan country.

The State has a population of 44 millions distributed over an area of 85,861 square miles. This gives an average density of only fifty-one persons per square mile. The Jammu sub-division is the most thickly populated, while the frontier areas in the north-east have very little of human habitation. The urban population is about one-tenth of the rural. The Muslims form the majority, being 77 per cent. of the total population. The Hindus who are the next in numerical importance (20 per cent.) are concentrated mostly in Jammu area. The Buddhists are confined largely to the eastern parts of Ladakh. The Sikhs and other communities are scattered all over the State.

Much has been written by European travellers about Kashmir since Bernier told the world of "Cachemire, the paradise of the Indies". However, no description can do full justice to the splendour with which Nature has invested it. In the words of the Kashmiris it is "an emerald set in pearls"—a land of lakes and streams and of perennial verdure and mighty mountains.

The State shows two broad physical divisions: the South-western through which flow the Jhelum, the Kishanganga and the Chenab, and the North-eastern which comprises the area drained by the Indus and its tributaries. The South-western Region may be divided into three parts: the belt of the Outer Hills, the Middle Mountains, and the Kashmir Valley. The North-eastern Region has three administrative divisions, namely, Ladakh or Little Tibet, Baltistan which is called Chera Bhotun by the Kashmiris, and Dardistan. The dividing line between the two regions is formed by the great central mountain range which runs from Nanga Parbat in a south-easterly direction for about 240 miles before it enters the territory of Lahaul.

the road from Kashmir to Gilgit, and the Zoji La of 11,300 feet, over which runs the road from Srinagar to Dras and Leh. From the Zoji La the mountains rapidly rise in elevation, the peaks attaining an altitude of 18,000 to 20,000 feet, culminating in the Nun Kun peaks which rise to a height of over 23,000 feet. Owing to their altitude these mountains are under perpetual snow, and glaciers form in every valley. The range keeps this character for a distance of 150 miles to the Bara Lacha Pass where it passes into Spiti.

The Karakoram range is of a far more complicated character. Broadly speaking, it is a continuation of the Hindu Kush, and forms the watershed between the Central Asia drainage and the streams flowing into the Indian Ocean. From its main ridge lofty spurs extend into Kashmir, separating the various tributaries of the Indus, the result being a stupendous mountain mass, 220 miles long with a width on the south side of the watershed of 30 to 60 miles. The peaks average from 21,000 to 23,000 feet, culminating on the west in the well-known Rakaposhi mountain, north of Gilgit, over 25,500 feet high, and in the mighty group of peaks round the head of the Baltoro glacier dominated by the second highest mountain in the world, Godwin Austen. The head of every valley is the birthplace of a glacier. Many of these are of immense size, such as the Baltoro, the Biafo and the Hispar glaciers, the latter two forming an unbroken stretch of ice, over 50 miles long. This great mountain barrier is broken through at one point by the Hunza stream, a tributary of the Gilgit river, the watershed at the head of which has a comparatively low elevation of about 15,500 feet. The next well-known pass lies 150 miles to the east, where the road from Leh to Yarkand leads over the Karakoram Pass at an altitude of about 18,300 feet.

A description of this mountainous region would be incomplete without a reference to the vast elevated plains of Lingzhithang, which lie at the extreme north-eastern limit of Kashmir territory. These plains are geographically allied to the great Tibetan plateau. The ground-level is from 16,000 to 17,000 feet above the sea, and such rain as falls drains into a series of salt lakes. Of vegetation there is little or none, the country being a desolate expanse of earth and rock. The northern border of this plateau is formed by the Kuenlun mountains, the northern face of which slopes down into the plains of Khotan.

The territories of Ladakh, Baltistan and Dardistan cover an area of 63,560 sq. miles, or roughly twice the area of the Jammu and Kashmir sub-divisions. They are very thinly populated, the total number of inhabitants being only about three lakhs.

Ladakh contains a great portion of what is the biggest massif of mountains in the world—the Karakorams. They form the northern boundary of the district, with passes lying at elevations of 17,000 to 18,000 feet. To the south of the Karakorams is the Ladakh range whose peaks tower 3,500 feet

which the eastern boundary spur branches near the Zoji La, another minor range is given off. This runs nearly due west for about 100 miles at an elevation ranging from 12,000 to 13,000 feet, with a width of 15 to 20 miles. It forms the watershed between the Jhelum on the south and its important tributary the Kishanganga on the north. After reaching $74^{\circ} 15' E$. the ridge gradually curves round to the south, until it reaches the Jhelum abreast of the western end of the Panjal range. The valley thus enclosed has a length, measured from ridge to ridge, of about 115 miles with a width, varying from 45 to 70 miles, and is drained throughout by the Jhelum with its various tributaries. The flat portion is much restricted, owing to the spurs given off by the great central range, which run down into the plain, forming the well-known Sind and Liddar valleys. On the southern side the spurs from the Panjal range project 10 to 16 miles into the plain.

The North-eastern Region is comprised between the great central chain on the south and the Karakoram range and its continuation on the north. It is drained by the Indus and its great tributaries, the Shyok, the Zaskar, the Suru, and the Gilgit rivers. The chief characteristic of this region, more especially of the eastern portion, is the great altitude of the valleys and plains. The junction of the Gilgit and Indus rivers is 4,300 feet above sea-level. Eighty miles farther east at the confluence of the Shyok and Indus, the level of the Indus is 7,700 feet; opposite Leh, 130 miles farther up the river, its height is 10,600 feet, while near the Kashmir-Tibet boundary in the Kokzhung district the river runs at the great height of 13,800 feet above sea-level.

Between the various streams which drain the country rise high mountain ranges, those in the central portions attaining an elevation of 16,000 to 20,000 feet, while the mighty flanking masses of the Karakoram culminate in the great peak Godwin Austen (28,265 feet). The difference of the level in the valleys between the eastern and western tracts has its natural effect on the scenery. In the east, as in the Rupshu district of Ladakh, the lowest ground is 13,500 feet above the sea while the mountains run very evenly to a height of 20,000 or 21,000 feet. The result is a series of long open valleys, bounded by comparatively low hills having very little of the characteristics of what is generally termed a mountainous country. To the west as the valleys deepen, while the bordering mountains keep at much the same elevation, the character of the country changes, and assumes the more familiar Himalayan character of massive ridges and spurs falling steeply into the deep valleys between.

The central chain commences in the west from the great mountain mass rising directly above the Indus, of which the culminating peak is the Nanga Parbat. From this point it runs in a south-easterly direction, forming the watershed between the Indus and the Kishanganga. It quickly falls to an altitude of 14,000 to 15,000 feet, at which it continues for 50 to 60 miles. It is crossed by several passes, the best known of which are the Burzil on

miles broad and about thirteen miles long, it lies to the north-east of the Valley surrounded by lofty mountains. The Dal, four miles long and one-and-half miles broad, is in the eastern suburbs of Srinagar. The Manasbal is the deepest lake in the country. All these are remnants of a great lake which filled the Valley in the Pleistocene.

The lakes found in the upper valleys around the Haramukh mountain are Gangabal, Lool Gool and Sarabal. They are at an elevation of nearly 12,000 feet above sea-level. To the south-east of the Pir Panjal range lies the lake of Konsar Nag (12,800 ft.) which is fed by glaciers. On the Amarnath mountain is the Tarsar lake which feeds the Harwan situated on the slopes of the Mahadev mountain, about two miles away from the Moghul garden Shalimar in Srinagar. Besides these, there are numerous tarns in the mountain ranges around the Gurais Valley, Ladakh and Karakorams.

The country is also rich in springs, many of which are thermal. They are useful auxiliaries to the mountain streams for irrigation, and are sometimes the sole source of water, as in the case of Achabal, Verinag and Kokarnag on the south, and Arpal on the east. Islamabad or Anantnag 'the place of countless springs' sends out numerous streams. One of these springs, the Maliknag, is sulphurous and its water is highly prized for garden cultivation.

above the summit of Mont Blanc. South of this range and cut off from its main chain by the Indus, lies the Zaskar range. These three mountain chains contain two great valleys, the Indus and the Shyok, the true floor of Ladakh. The territory comprises six sub-divisions: Rukshuk, Zaskar, Lubra, Leh, Dras, and Kargil.

Ladakh is for the most part a desert of bare crags and granite dust with vast arid tablelands of high elevation. There is hardly any place in the region which is less than 8,000 feet above the sea. The height of the mountains ranges from 17,000 to 21,000 feet, and there are some peaks which are over 25,000 feet. There is practically no rainfall and temperature variations are great. Whatever vegetation is found, centres round the streams and *nullahs*. The chief crops are wheat, barley, buck-wheat, peas, rapeseed, beans, turnips, and lucerne. *Grim*, a variety of loose grained barley, is intensively cultivated and flourishes in regions as high as 14,000 feet above sea-level. In the warmer parts, apples and apricots are grown.

Baltistan or Skardu extends on both sides of the Indus for 150 miles. It is bounded on the north by the Karakoram mountains, on the east by Ladakh, on the south by the Himalayas, and on the west by Dardistan. Its sub-divisions are Kharmang, Khaplu, Shigar, Skardu, and Rondu. Very high mountains intermingle with valleys, and several glaciers are found of which the Baltoro is the greatest in the world. Side by side several hot springs also exist.

The climate of Baltistan is like that of Kashmir. The fruits are very sweet, especially grapes, melons and apricots. However, the cultivable land is very little, and the people migrate every year in search of labour to other States.

Dardistan is bounded on the north by the Karakorams, the Hindu Kush, and Pamir; on the east by Baltistan; on the west by Yagistan; and on the south by the Kashmir Valley. Its sub-divisions are Astor, Bunji, Chilas, Gilgit, Hunza, Nagar, Punial, Yasin, and Chitral. The Indus flows through 150 miles of the area draining the water of the northern and southern mountains. The rainfall is slight. In the northern tracts nearly all the fruits of Kashmir are to be found, especially in Hunza and Nagar where they are very sweet and delicious. The area from Astor to Gilgit is as hot as the Punjab. Little fields of corn are met with in the neighbourhood of villages. However, grass and timber are scarce. The chief agricultural products are wheat, barley and maize.

It is said of Maharaja Gulab Singh that when he surveyed the valley of Kashmir after purchasing it from the British in 1846, he grumbled and remarked that one-third of the country was mountains, one-third water and the remainder alienated to privileged persons. The number of lakes—mountain tarns—in the State is very large indeed. Of these the Wular, the Dal and the Manasbal are known all over the world for their exquisite beauty. The Wular is the largest fresh-water lake in India, and perhaps in Asia. Five

April. The average snow-fall at Srinagar in an ordinary winter is about 8 feet.

In April and May thunderstorms occur occasionally in the Valley and the surrounding hills, giving light to moderate showers of rain which are of considerable value to the cultivators. From June to November heavy rain falls on the Pir Panjal range, and in Jammu, chiefly in the months of July, August and September. The rainfall at Jammu and Poonch is comparable with that of the submontane districts of the Punjab. It is more moderate in amount in the Valley, which receives a total of about 10 inches, as compared with 36 inches at Poonch and 27 inches at Domel. The precipitation is very light to the east of the first line of the snows bordering the Valley on the east, and is about 2 inches in total amount at Gilgit, Skardu, Kargil and Leh. Thus the south-west monsoon is the predominant feature in Jammu and Kishtwar, while in Ladakh, Gilgit and the higher ranges the cold-season precipitation is more important.

CHAPTER XXIV

CLIMATE

THE climatic conditions in Kashmir show great diversity due to marked differences in the altitude of various regions, the elevation varying from 1,200 ft. at Jammu to over 25,000 ft. on the highest mountain peaks. Besides, factors, such as, situation (i.e., whether a valley or a mountain peak), direction of winds, nature of precipitation, radiation from the ground, and the period and depth of snow accumulation, which vary from place to place, also have great influence on climate.

The temperature in the valleys which are more or less completely shut in by mountains is considerably lower than that at similar elevations on the crest of the Outer Himalayas. At higher elevations, where snow accumulation is heavy, winter is very severe. Where rapid radiation from the ground occurs, such as at Dras and Sonamarg, the temperature even in sunny days in winter does not rise much above the freezing point.

The mean daily temperature is the lowest in January and highest in June or July. At Srinagar, the average for January is about 33°F., and for July, which is the hottest month, about 74°F. The range of mean temperature between the maximum and the minimum is 25° to 75°F. at Skardu, 3° to 65°F. at Dras, 18° to 62°F. at Leh, and 37° to 85°F. at Gilgit. The most noteworthy features of the annual variation are the very rapid increase of temperature in March or April at the end of the winter, and an equally rapid decrease in October when the skies clear after the south-west monsoon. The diurnal range is least at Gilgit (20°F.) and Srinagar (22°F.) on the mean of the year, and greatest at Dras (31°F.) and Leh (26°F.).

The precipitation is confined to two well-defined periods, namely, winter season from December to April, and the south-west monsoon period from June to September. The rainfall in October and November is small in quantity, and November is usually the driest month of the year. The winter precipitation is chiefly due to storms which advance from Persia and Baluchistan across northern India. These disturbances occasionally cause very stormy weather in the State, with violent winds and heavy snow-fall. The snow-fall is heavy on the Pir Panjal range, the maximum being in January or February. In the Valley and the mountain ranges to the north and east this is the chief precipitation of the year, and is very heavy on the first line of the permanent snow, but decreases rapidly eastwards to the Karakoram range. The largest amount is received at Srinagar, Dras and Anantnag in January. In the Karakoram region and the Tibetan plateau the winter fall is much later (i.e., from March to May) than that on the outer ranges of the Himalayas, the maximum being received in

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There is abundant evidence that igneous or volcanic agencies were at one time actively at work, as is proved by the outpouring of vast quantities of volcanic rocks; but these are not known to have erupted since the Eocene period. Subterraneous thermal action is, however, indicated by the prevalence of numerous hot springs.

The following Table of geological systems in descending order is given by Lydekker for the whole State :

<i>Geological System</i>	<i>Period</i>
<hr/>	
Alluvial system :	
Low-level alluvia, &c.	Prehistoric
High-level alluvia, glacial, lacustrine, and <i>karewa</i> series	Pleistocene
Tertiary system :	
Siwalik series { Outer Inner	} Pliocene
Sirmur series { Murree group Sabathu group Indus Tertiaries }	Miocene
Zaskar system :	
Chikkim series	Cretaceous
Supra-Kuling series	Jura and Trias
Kuling series	Carboniferous
Panjal system :	
Not generally subdivided	{ Silurian } Cambrian
Metamorphic system :	
Metamorphosed Panjals, &c. Central gneiss	Palaeozoic and Archæan
<hr/>	

Under the first of these systems, Lydekker has discussed the interesting question whether Kashmir was once covered by a great lake. In this discussion the *karewas* figure prominently, and according to him the only explanation of the upper *karewas* is that Kashmir must have been occupied in the remote past by a vast lake of which the existing lakes are remnants.

The geological formations consist of rocks of various ages. Crystalline metamorphic rocks, gneisses and schists occupy very large areas to the north of the Outer Himalayas. Fossiliferous Palaeozoic rocks occupy an elongated ellipse-shaped patch of the country north of the alluvial part of the Valley,

GEOLOGY AND SOILS

'KASHMIR', the old Sanskrit name by which the land has been known since time immemorial, is believed by some to be connected with the memory of Kashyapa who, according to the traditional account, caused a mighty lake which covered the country to be dried up. Dr. Stein refers to this legend in his famous book 'The Ancient Geography of Kashmir' as follows:

"The general configuration of the country may be held to account for the ancient legend which represents Kashmir to have been originally a lake. This legend is mentioned by Kalhana in the Introduction to his Chronicle and is related at great length in the Nilamata.

"According to this earliest traditional account the lake called Satisara, 'the lake of Sati (Durga)', occupied the place of Kashmir from the beginning of the Kalpa. In the period of the seventh Manu the demon Jalodbhave (waterborn) who resided in this lake, caused great distress to all neighbouring countries by his devastations. The Muni Kasyapa, the father of all Nagas, while engaged in a pilgrimage to the Tirthas in the north of India, heard of the cause of this distress from his son Nila, the king of the Kashmir Nagas. The sage thereupon promised to punish the evil-doer and proceeded to the seat of Brahma to implore his and other gods' help for the purpose. His prayer was granted. The whole host of gods by Brahma's command started for Satisara and took up their position on the lofty peaks of the Naubandhana Tirtha above the lake Kramasaras (Konsar Nag). The demon who was invincible in his own element, refused to come forth from the lake. Vishnu thereupon called upon his brother Balabhadra to drain the lake. This he effected by piercing the mountains with his weapon, the plough-share. When the lake had become dry Jalodbhave was attacked by Vishnu and after a fierce combat slain with the god's war-disc.

"Kasyapa then settled the land of Kashmir which had thus been produced. The gods took up their abodes in it as well as the Nagas, while the various goddesses adorned the land in the shape of rivers.

"The legend of the desiccation of the lake is also alluded to by Hiuen Tsiang, though in another Buddhistic form. Its main features, as related in the Nilamata, live to this day in popular tradition. They are also reproduced in all Muhammadan abstracts of the Chronicle. From Haidar Malik's *Tarikh* the legend became known to Dr. Bernier who prefaces with it his description of the '*Paradis terrestre des Indes*'. It has since found its way into almost every European account of Kashmir."

Geologists corroborate the story in so far as it relates to the existence of a vast lake in the Valley. However, they assign to the lake a date somewhere in the comparatively late geological times.

The Valley proper possesses a large area of alluvial soil, which may be divided into two classes: the new alluvium, found in the bays and deltas of the mountain rivers; and the old alluvium, lying above the banks of the Jhelum and extending as far as the *karewas*. The first is of great fertility, and every year is renewed and enriched by silt from the mountain streams. Up to the present, in spite of the lax system of forest conservancy, the silt of the mountain streams is rich and of dark colour; but the Sind river brings down an increasing amount of sandy deposit, which is partly due to the reckless felling of trees.

The Kashmiris recognize four classes of soil. These are known as *grutu*, *bahil*, *sekil* and *dazanlad*. *Grutu* soil contains a large proportion of clay. It holds water, and in years of scanty rainfall is the safest land for rice. But if the rains be heavy, the soil cakes and the out-turn of the crop is poor. *Bahil* is rich loam of great natural strength; and there is always a danger that by over-manuring the soil may become too strong and the plant run to blade. *Sekil* is light loam with a sandy sub-soil; and if there be sufficient irrigation and good rains, the out-turn of rice is always large. *Dazanlad* soil is chiefly found in low-lying ground near the swamps, but it sometimes occurs in the higher villages also. Special precautions are taken to run off irrigation water when the rice plant shows signs of a too rapid growth; and if these are taken in time, the out-turn in *dazanlad* land is sometimes very heavy. A peculiarity of this soil is that the irrigation water turns red in colour. Near the banks of the Jhelum, and in the vicinity of the Wular Lake, is found a rich, peaty soil (*nambal*), which in years of fair rainfall yields enormous crops of rapeseed and maize. This will not produce rice and requires no manure. It is, however, the custom to burn standing weeds and the stubble of the previous year's crop before ploughing.

The *karewas*, which form so striking a feature in the scenery of the country, are for the most part of *grutu* soil, with varieties distinguished by colour. The most fertile is the dark blackish soil known as *surhzaamin*, the red *grutu* is the next best, while yellow soil is considered the worst of all. Other classes are recognized, and there are many local names.

GEOLOGY AND SOILS

stretching from the Lidar to the south-east end of the Kashmir sedimentary basin where it merges into the Spiti basin. Rocks of Cambrian and Ordovician ages are met with in many parts of the State. In composition these rocks are thin-bedded argillaceous, siliceous and micaceous slates. The rocks composing the Lower Carboniferous of Kashmir are mainly thin-bedded flaggy limestones of grey colour. Overlying the upper beds of these Syringothyris limestones there are beds of unfossiliferous quartzites and shales.

Rocks of the Punjab Volcanic series in Kashmir are divisible into two broad sections: the lower — a thick series of pyroclastic slates, conglomerates and agglomeratic products, some thousand feet in thickness, and the upper — the 'Punjab traps' an equally thick series bedded and estitic traps generally, overlying the agglomerates. The series cover an enormous surface area of the country, being only next in area and distribution to the gneissic rocks. The 'Punjab traps' are directly and conformably overlain in several parts of Kashmir by a series of beds of siliceous and carbonaceous shales.

The Triassic rocks in Kashmir consist mainly of limestones which are often dolomitic in composition. The outer Siwaliks consist lithologically either of very coarse conglomerates, the boulder conglomerate, or massive beds of brown and red clays.

SOILS

No detailed survey of the soils of Kashmir has been made. The available data are summarised below.

Locality	Nature	N	Avail- able K ₂ O	Avail- able P ₂ O ₅	CO ₂	Loss on igni- tion	pH	CaO	T. S. S.
Taparkerewa Tehsil Bera	Saffron soil	105	0.044	0.022	0.138	..	..	..	..
Srinagar	Garden soil	0.12	0.023	0.016	0.23	..	..	1.48	..
Kishtroor	Saffron soil	0.049	0.17	0.70	..	5.07	7.3	6.97	0.086
Shilvat		0.404	0.224	2.556	..	..	..	..	..

Hoon (1938) has carried out an investigation of soil profiles, under *deodar*, blue pine, silver fir and *chir* in the hill forests of the main Valley and Batote Range in Jammu. The blue pine soils of the Valley appear to belong to the podsol group. The *deodar* soil of Batote belongs to the brown earth group. Hoon suggests that the podsoles of Kashmir Valley are more allied to the Kulu Coniferous soils of the podsol group than to the recognised type of podsol.

elevations feed the various mountain streams which flow into the Jhelum. From both sides of the river the country rises in bold terraces, and the water passes quickly from one village to another. At convenient points on the mountain streams, temporary weirs or projecting spurs are constructed, and the water is taken off in the main channels, which pass into a net work of small ducts and eventually empty themselves into the Jhelum or into the large swamps which lie along its banks. Lower down, where the streams flow gently, dams are erected. All villages which depend for their irrigation on a certain weir are obliged to assist in its construction and repair. The weir consists of wooden stakes and stones, with grasses and willow branches twisted in between the stakes, the best grass for this purpose being the *fikal*. The channel often has to be taken over ravines and around the edges of the *karewa* cliffs, and irrigation then becomes very difficult. The system of distribution is rough and simple; but it has the advantage that quarrels between villages rarely arise, and disputes between cultivators of the same village are unknown. Besides the irrigation derived from the mountain streams, an important auxiliary supply is obtained from numerous springs. Some of these afford excellent irrigation, but they have two drawbacks. Spring water is always cold and it does not carry with it the fertilizing silt brought down by the mountain streams, but bears a scum which is considered bad for rice.

The Kashmiris are fortunate in possessing ample manure for their fields, and are not compelled to use the greater part of the cattle-dung for fuel. The rule is that all dung, whether of sheep, cattle, or horses, dropped in the winter when the animals are in the houses is reserved for agriculture, while the summer dung is dried and after being mixed with *chinar* leaves and willow twigs is kept for fuel. When the flocks begin to move towards the mountains, the sheep are folded on the fields, and this provides rich manure for the summer crops. Turf clods, taken from the sides of water courses, are considered to be even more effective than farmyard manure for improving the fertility of rice fields. These are rich in silt, and a dressing of these is believed to strengthen a field for three years, whereas farmyard manure must be applied every year. The strongest farmyard manure is that of poultry, and this is reserved for onions. The next best is the manure of sheep, which is always kept for the rice nurseries. Next comes cattle dung, and last of all horse dung. The value of night-soil is thoroughly understood. Near Srinagar and the larger villages, the only manure used is poudrette; or night-soil mixed with dust and decomposed by the action of the sun.

The implements used by the farmers are few and simple. The plough is of necessity light as the cattle are small. It is made of various woods, the mulberry, the ash, and the apple being considered the best. The plough-share is tipped with iron. For clod-breaking a wooden mallet is used and the work is done in gangs. Sometimes a log of wood is drawn over the furrows by bullocks, the driver standing on the log. But as a rule, the frost,

CHAPTER XXVI

CROPS AND AGRICULTURAL PRACTICES

AGRICULTURE in Kashmir presents a highly variegated pattern, as may well be expected in a country where the topography and climate change abruptly every twenty miles. It is not possible to describe it in detail here, but a broad idea of the cultivation practices followed and the crops grown in the more homogeneous areas may be had from the account given below.

In Jammu, the lower tracts yield all the usual crops of the Punjab, while at higher elevations saffron, buck-wheat and mountain-barley are grown. Mango and *sheesham* are found in abundance in the warmer parts, and apple, pear, *deodar*, and *chinar* are common in the hills. In the hot moist tracts irrigated from the Ravi and the Ujh, cultivation is done mostly by men from the adjoining hills who descend to the plains for short periods. North of this area lie the thirsty low-lands and the *kandi* tract which produce only small quantities of wheat, barley, maize and millets. Beyond the *kandi* hills is a narrow belt of fertile valleys traversed by numerous streams. In this area excellent crops are raised wherever the soil is deep. But on the hill slopes cultivation is scanty and precarious.

Above the first limestone range is situated a country of wide valleys and high hills, consisting of Basohli, Ramnagar, Udhampur, Nawshera, and part of Reasi tehsils. It has a temperate climate, and the supply of water from perennial streams is constant. Being nearer the Himalayan range, rainfall is usually heavy and fairly regular. The crops are much the same as those grown in the plains, but *bajra* gives place to maize. Grazing facilities are good, and the tract is frequented by *gujars*, goatherds and shepherds.

The higher uplands, including Bhadrawarh, Kishtwar, Ramban, part of Reasi and Rampur Rajouri, have a really cold climate and in the winter snow-fall is not uncommon. The cultivators are a different class from those in the plains and the lower hills. The climate approximates to that of the Kashmir Valley, and so does the pattern of cultivation. Irrigation is common and the rainfall heavy. The specialities are saffron in Kishtwar, and poppy in Doda, Kishtwar and Bhadrawarh. Grazing lands are plentiful and Gujars numerous. Early snow-fall and cold winds from the mountains affect the crops in the parts adjoining the Himalayan range and not infrequently delay their ripening.

IRRIGATION

Agriculture in Kashmir Valley depends practically entirely on irrigation, which is both easy and abundant in normal years. The snows at higher

harvest a final watering is given which swells the ears. Often, while the rice is standing, rapeseed is cast into the water. No ploughing is given, and a crop of rape is thus easily obtained. Before the harvesting of autumn crops commences, about the first half of September, rain may fall and it is very beneficial. It improves the rice crop, and it also enables the cultivator to plough and sow for the spring crops. Such rain is known as *kambar ka*, and there is great rejoicing when these timely showers occur. Before September, if rain has fallen, a large area of land will be ploughed up and sown with rapeseed; and both this and the early sowings for barley and wheat are of importance, as they come at a time when the cultivator and his cattle have some leisure, for then the *khushaba* is over and harvest has not commenced. There are no carts in the Valley, save in the flat plain around the Wular Lake, where a primitive trolley is used; and as the Kashmiris will not use plough-bullocks for carriage, the sheaves of rice and of other crops are slowly and laboriously carried by men to the threshing floor. When the ricks are thoroughly dry, threshing commences. Gripping a bundle of rice plants in his two hands, the cultivator beats them over a log of wood and detaches the ears from the stalk. The straw is carefully stored, as it is considered good fodder and the best thatching straw of all.

When the weather is favourable, from October to December, the cultivator is busy ploughing 'dry' land for wheat and barley. But by the end of December, ploughing must cease, and the farmers occupy themselves with threshing and husking the rice and other crops, and with domestic work, such as tending sheep and cattle and weaving blankets.

The ploughings for wheat and barley are very few—three at the most for wheat, for barley two, are considered sufficient. No labour is spent in weeding or manuring, and the standing crops of wheat and barley would shock a Punjabi farmer. The fields are choked with weeds, and it is wonderful that there should be any crop at all. Two years of barley or wheat cultivation would ruin any land, and the farmers have the sense to follow a spring crop by an autumn crop. Some day more attention may be paid to their barley and wheat, but two facts prevent either of these crops being largely produced in the Valley. The rainfall is scanty and very uncertain, and if irrigation were attempted the water in the spring time would prove too cold for plant growth.

The principal crops are rice, maize, cotton, saffron, tobacco, hops, millets, amaranth, buck-wheat, pulses, and sesamum in the autumn; and wheat, barley, poppy, rape, flax, peas, and beans in the spring.

Rice. It is the staple diet of Kashmiris; its cultivation is, therefore, given the most careful attention. The soils being generally porous, water has to be kept running over the fields right from the sowing of the crop to almost the harvest time, for if once the land becomes hard and caked, the stalks are pinched and the plants suffer heavy damage. Weeds are also a serious menace as their growth is very rapid. If they get ahead of the young

the snow, the abundant water and the *khushaba* (a weeding process) suffice for the disintegration of clods. For maize and cotton, a small hand hoe is used to extract weeds and to loosen the soil. Pestle and mortar are employed for husking rice and pounding maize. The mortar is made of a hollowed-out bole of wood, and the pestle is of light hardwood.

Agricultural operations are so timed that they fall within a certain period, considered auspicious, between the *nauroz* or the spring day and the *mezan* or commencement of autumn. The rice fields are hard and stiff in March; and if, as is sometimes the case, no snow has fallen, it is difficult work for the plough bullocks, thin and poor after the long winter, to break up the soil. If rain does not fall, a special watering must be given before ploughing commences. At times ploughing has to be done while the soil is wet, and in that case the out-turn is always poorer than the yield from fields where the soil is ploughed in dry condition. All the litter of the village and the farm-yard manure are carried to the fields by women and ploughed in or heaped in a place through which the irrigation duct passes so that the manure may get mixed with water and distributed evenly. In April, turf clods are cut from the banks of streams and irrigation channels, and broadcast over the wet fields. When four ploughings have been given and the clods broken with mallets, the soil is watered and sowing commenced. The rice seed, which has been carefully selected at threshing time and has been stored away in grass bags, is again examined and tested by winnowing. It is then put back into the grass bags and immersed in water until germination takes place. Sometimes the seed is placed in earthen vessels through which water is passed. In the higher villages it is convenient to sow earlier than in the lower villages, as the cold season comes on quicker and it is essential to harvest the crop before snow falls. Ploughing for maize and the autumn millets is not done so carefully as for rice; only two or three operations are considered sufficient. Sometimes, maize fields are irrigated after the sowings, but no manure is put in as a rule. Cotton alone receives manure in the form of ashes mixed with the seed.

In June and July, barley and wheat are cut and threshed. The ears are trodden out by cattle or sometimes beaten by sticks, and when there is no wind a blanket is flapped to winnow the grain. Anything is good enough for the spring crops, which are regarded by the Kashmiris as a kind of lottery in which they generally lose their stakes. At the same time comes the real labour of rice weeding, the *khushaba*. It involves putting the rice plants in their right places, and pressing the soft mud gently around the green seedling. No novice can do the work, as only an expert can detect the counterfeit grasses which pretend to be rice. The operation is best performed by hand, but it may be done by the feet, or by cattle splashing up and down the wet fields of mud (*gupan nind*). Sometimes when the rice is two feet high the whole crop is ploughed up (*sele*). When rice has bloomed and the grain has begun to form, the water is run off the fields, and a short time before

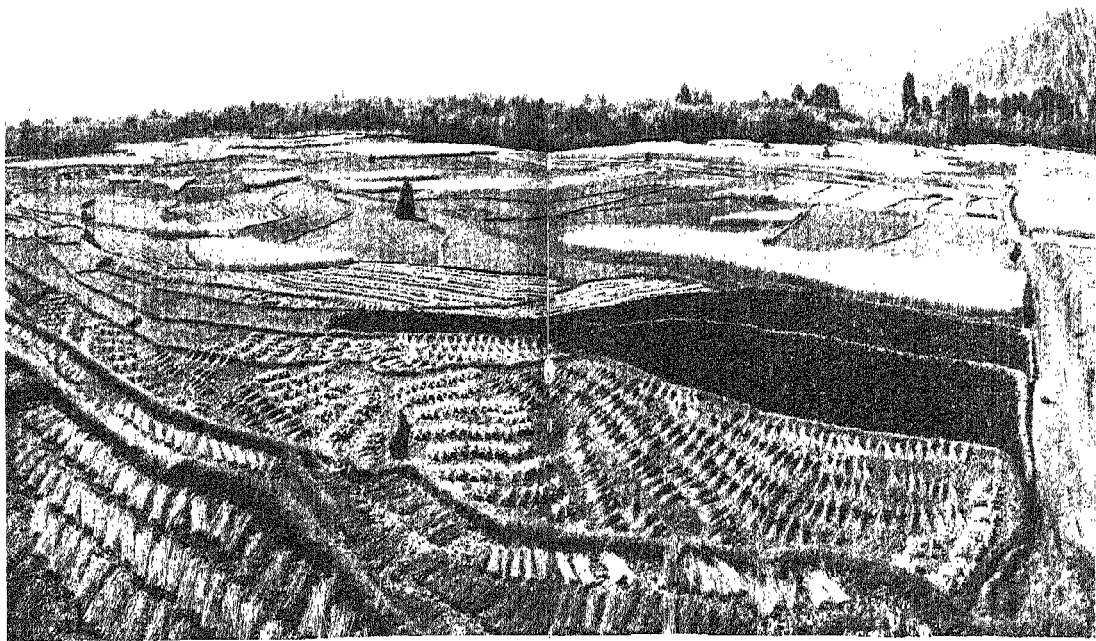


Fig. 87. A view of paddy fields during the harvest season in Kashmir valley



Fig. 88. An old Kashmiri couple



Fig. 89. Kashmiri children



Fig. 86. Kashmiri farmers threshing paddy

plants it becomes extremely difficult to eradicate them or to repair the injury.

There are two systems of cultivation. Under the first the rice is sown broadcast; under the second it is first sown in nursery and then planted out. Two *khushabas* are sufficient for the latter, while four *khushabas* are essential in broadcast sowings. Where the soil is good and irrigation fairly abundant, the cultivator generally prefers the broadcast system, though in certain circumstances the nursery method becomes necessary. The soil is prepared in two ways. The one is known as *tao*, the other as *kenalu*. An old proverb says that for rice cultivation the land should be absolutely wet or absolutely dry. In *tao* cultivation the soil is ploughed dry; and when the clods are perfectly free from moisture the seed is sown after giving the first irrigation. In *kenalu* cultivation, the soil is ploughed wet. However, as a rule the *tao* system is preferred, for it gives better results and also involves less labour.

The number of rice varieties in Kashmir is very large, but they may roughly be divided into two classes, the white and the red. The white varieties are held in greater esteem, the best among them being the *basmati* and the *kanyun*. These germinate quickly and also ripen more rapidly than any other variety. But the plants are very delicate and cannot stand exposure to cold winds; consequently the crop yield is small. Therefore, from the cultivator's point of view the white rices are less popular than the red ones, which are more hardy, give larger out-turn, can be grown at higher elevations, and are less liable to damage from wild animals.

For a good rice harvest the following conditions are considered necessary: heavy snows on the mountains in the winter to fill the streams in the summer; good rains in March and at the beginning of April; clear, bright, warm days and cool nights in May, June, July and August, with an occasional shower and fine cold weather in September.

Maize. In importance, maize is second only to rice. Enormous crops are raised in the black peaty land bordering the banks of the Jhelum, as also in the high tracts occupied by the Gujar graziers.

As a rule, the fields receive no manure, the prevailing system of harvesting rendering application of manures unnecessary. A large part of the stalks is left on the fields, which rot away during the winter and are ploughed into the soil. Ordinarily two to three ploughings are given before sowing the seed. A month after sowing, when the plants are about a foot high, the fields are weeded, mostly by women, with the help of a small hand hoe. For a really good crop, fortnightly rains are required, but in the swamp lands the natural moisture of the soil proves adequate even when precipitation is delayed. No irrigation is given as a rule.

Millets. In years of scanty snow-fall, the rice lands are extensively sown with *kangni* or *shol* (*Setaria italica*) which is a valuable millet crop. The fields are carefully ploughed about four times, and the seed is sown in

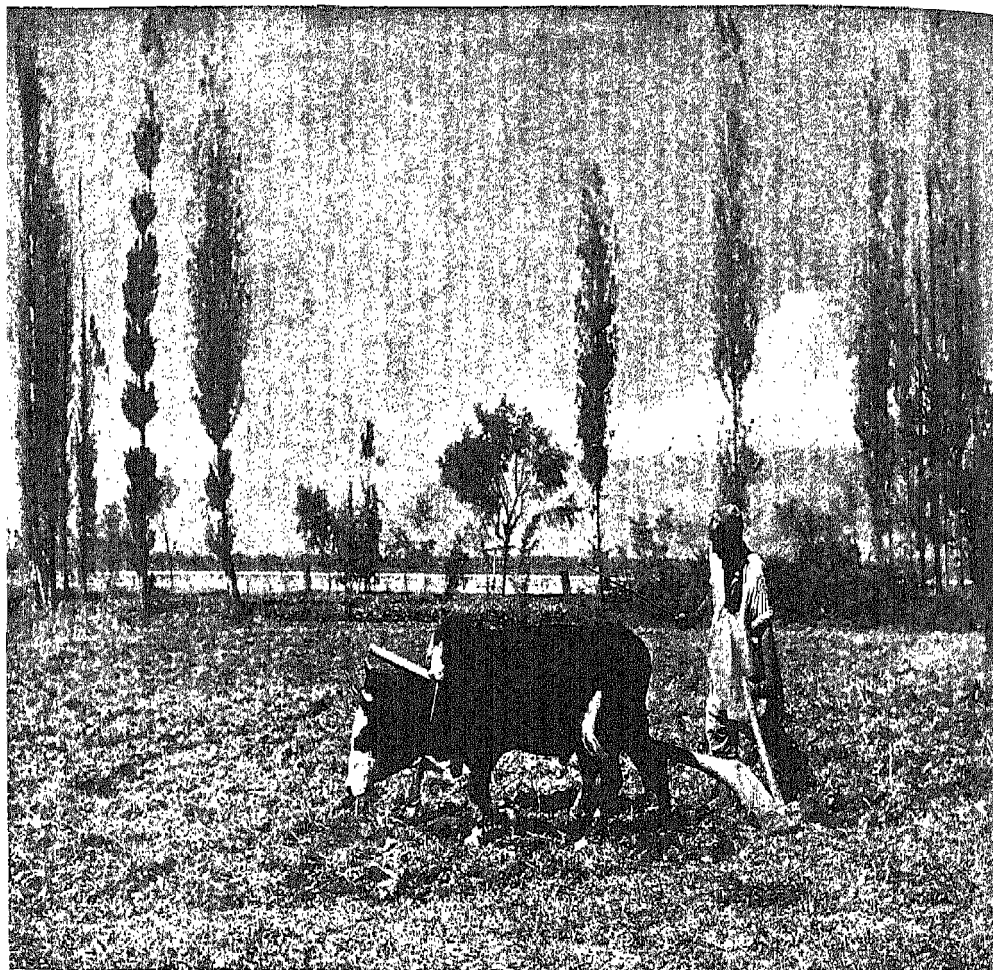


Fig. 90. A farmer ploughing his field near Srinagar

Til (*Sesamum indicum*), which is a very common crop, is sown in April after ploughing the land four times. The plant is very delicate and is injured by cold winds. The crop ripens shortly after rice. Blankets are spread under the plants at harvest-time to collect the seeds which fall out of the pods easily. The average yield is about $1\frac{1}{2}$ maunds per acre.

Cotton. Cotton is grown up to a certain elevation only. Its cultivation is concentrated mostly in the *karewas* and the low-lying rice lands. The soil is ploughed at least three times, after which the clods are pulverized with mallets. The seed is soaked in water and mixed with ashes before sowing, but the plant receives no manure. Sowing takes place at the end of April or in May.

Wheat and Barley. These are the major spring crops of the Valley. From the point of view of area, barley is more important of the two. However, little effort is expended on its cultivation, and the quality of grain is also poor. The seed is sown from October to December after one or two ploughings. The fields are seldom weeded or manured. It sometimes becomes difficult to distinguish the plants amid the mass of the *chirman* weed (*Ranunculus* sp.).

In the higher villages, at an elevation of 7,000 feet, a special variety, known as *grim* or Tibetan barley, is grown. It is an important food-staple in those high regions.

Wheat receives better treatment than barley, but two ploughings, with a third at seed time, are considered sufficient. The land is neither manured nor weeded, and as a rule no irrigation is given. The seed is sown in September and October, and the crop ripens in June. The common variety is a red wheat with a small hard grain.

Saffron. The vast plateaux of Pampur present an unforgettable sight in the months of October and November when the saffron fields are in flower. Used as a perfume, salve, medicine, culinary and confectionary delicacy, anointment in religious and social ceremonies, etc. saffron has enjoyed a high prestige since time immemorial. Kashmir is the largest producer of it in the world and her people proudly call it 'Kashmiraja'.

The cultivation of saffron is a difficult art. For seed purposes a particular aspect and sloping ground is required, and it takes three years before the bulbs can be planted in the small square plots where the crop is to be grown. The time for planting the bulbs is in July and August, and all that the cultivator has to do is to break up the soil surface gently a few times and to ensure proper drainage of the plot by digging a neat trench on all the four sides. The flowers appear about the middle of October. These are collected and dried in the sun. The stigma has a red orange tip which forms the *shahi saffron* or the first quality saffron. The long white base of the stigma also provides saffron, but the product is of slightly inferior quality. The saffron collected from the tip and base of the flower in dry condition is known to the trade as *mongra*. After the *mongra* saffron is extracted, the

April and May. Some weeding is done, but generally the crop is left undisturbed until it ripens in September.

Another important millet is *cheena* or *ping* (*Panicum miliaceum*) which is very like rice in appearance, but is grown on 'dry' land. The field is ploughed three times in June, and after sowing cattle are let in to tread down the soil. Weeding is done occasionally, but like *kangni*, the crop does not require much attention. It is harvested in September.

Amaranth. The *ganhar* or amaranth, with its gold, coral, and crimson stalks and flowers is an exceedingly beautiful crop. It is frequently sown in rows in the cotton fields or on the borders of maize plots. The sowing is done in May after two or three ploughings. No manure or irrigation is given, and with timely rains a large out-turn is harvested in September. The minute grain is first parched, then ground and eaten with milk or water. It is considered a heating food by the people, and Hindus eat it on their fast-days. The stalks are used by washermen, who extract an alkaline substance from the burnt ashes.

Buck-wheat. *Trumba* or buck-wheat (*Fagopyrum esculentum*) is a very useful plant as it can be sown late in almost any soil. When the cultivator sees no hope of water coming to his rice fields he at once gets busy sowing the *trumba*. There are two varieties. The sweet *trumba*, which serves as a substitute for rice and the bitter *trumba*, which in the higher villages is very often the only food grain grown. The unhusked grain is black in colour, and is either ground and made into bread or eaten as porridge.

Pulses. Pulses till lately were not very popular, only *mung* (*Phaseolus mungo*) having some importance. The land is ploughed three times and the seed sown in May. No irrigation is given. The other pulses are *mah* (*Phaseolus radiatus*) and *mothi* (*P. aconitifolius*).

Oilseeds. The principal oilseed is rape, of which there are three varieties. The first is *tilgoglu*, which is sown in September and October on 'dry' lands, and especially on the soft reclaimed swamp lands. As a rule there is no weeding, except where the wild hemp is very vigorous. Timely rains from February to May are required, and the crop is harvested in May and June. The second variety is known as *taruz* or *sarshaf*, and is sown in the spring. It ripens at the same time as the *tilgoglu*. The third kind is known as *sandiji*, and is sown in the standing rice crop when the last watering is being given. It yields a small crop, but as no labour is expended on it the cultivator regards it quite useful.

Linseed is cultivated all over the Valley, but the best fields are on the lower slopes of the mountains. The land is ploughed twice, and a third ploughing is given when the seed is sown in April. The crop is harvested towards the end of July. Timely rains are required in May or the plant withers. The crop is said to exhaust the land, but little manure is given and the fields are not weeded.

CHAPTER XXVII

HORTICULTURE

KASHMIR is a land of fruits and flowers. Perhaps no other country grows a greater variety or has better facilities for horticulture. The apple, pear, vine, mulberry, walnut, hazel, cherry, peach, apricot, raspberry, gooseberry, currant, plum and strawberry are found in abundance in most parts of the Valley.

When the first days of summer arrive, the mulberry trees are surrounded by villagers with their outspread blankets, and by cattle, ponies, and dogs, who all munch the sweet black or white fruit. There are grafted varieties, the best of which is *shahtut*, purple and juicy, and much esteemed as a preserve. With an eye to the winter the provident cultivator stores away the mulberries which he cannot eat, and they retain their sweetness long. The apricot ripens next, and they too are quickly eaten or stored away for the winter; but the Kashmiri looks on the apricot as intended to give oil rather than fruit. This fruit is also used by the silversmith for cleaning his metal, and by dyers as an astringent. The cherry is usually of the *Black Morella* variety, sour in taste, yet appreciated by the people; but in places the delicious Whiteheart an introduction from Europe *via* Arabia, Persia, and Afghanistan is cultivated. The wild plums are excellent, and the cultivated plums are often very fine. The peach that has extended its area from cultivation is small but refreshing, and a wild raspberry is as good and as delicate in flavour as the cultivated raspberry and the wild strawberry and black currant are excellent.

The most popular apple is the *Anbru* or *Ambri*, which has a large round red and white sweet fruit, ripening in October and keeping its condition for a long time. This is exported in large quantities, and it finds favour with the people of the country for its sweetness and handsome appearance. The *Mohi Ambri* is like the *Ambri*, but is more acid and redder. It is largely exported. The *Khuddu Sari* apple is said to have been introduced from Kabul. It is long in shape, and is juicy and rather, acid, ripening early and not keeping. But the best apple, so far as flavour goes, is the little *Trel*, which abounds in the neighbourhood of Sopur. There are three common kinds: the *Nabadi Trel*, which is rather yellow, the *Jambasi Trel*, which turns red; and the *Sill Trel*, which is rather larger than the *Nabadi* and *Jambasi*, and of a deep red colour. When ripe these little apples have the most delicious taste, half sour, half sweet. From this variety, when picked at the right time, excellent cider has been made. A superior variety of the *Trel* is the *Khatoni Trel*, which is larger but possesses all the flavour of the smaller kind. There are many other kinds, but the Kashmiri would give the palm to the *Dud*

sundried flowers are beaten lightly with sticks and winnowed. Then the whole mass is thrown into water to separate the petals which do not sink. The petals are again dried and beaten. The process is repeated a number of times, but after each repetition the quality of the yield deteriorates. The saffron so collected is named *lachha*.

FLOATING FIELDS

Next to saffron cultivation in interest come the floating gardens of the Dal Lake, which resemble the 'china-mpas' of Old Mexico. The whole cultivation and vegetation of the lake is full of interest and of great importance to the people. The *radh* or floating gardens are made of long strips of the lake reed, with a breadth of about six feet. These strips can be towed from place to place, and are moored at the four corners by poles driven into the lake bed. When the *radh* is sufficiently strong to bear the weight of a man, heaps of weed and mud are extracted from the lake by poles, formed into cones, and placed at intervals on the *radh*. The cones are known as *pokar*. Each cone accommodates two seedlings of melons or tomatoes, or four seedlings of water-melons or cucumber. Everything that plant life requires is present. A rich soil and ample moisture, with the summer sun, help to produce vegetables in surprising abundance and of excellent quality. Not inferior to the floating gardens in fertility are the *demb* lands, which are formed along the sides and sometimes in the middle of the lake when the water is shallow. The cultivator selects his site and plants willows and sometimes poplars along its four sides. Inside these he casts boatloads of weed and mud until his land is above the flood-level, and year after year he adds a new dressing of the rich lake weed and mud. Around the *demb* plot run little water-channels from the lake, so that moisture is always present. On the *demb* a great variety of crops are raised. Rapeseed, maize, tobacco, melons and other *Cucurbitaceae*, potatoes, onions, radish, turnips, egg-plants, white beans, peaches, apricots and quinces flourish on this rich soil.

CHAPTER XXVIII

FARMING COMMUNITIES

It is now generally accepted that Kashmiris have descended from the Indo-Aryan stock. The Valley is believed to have been inhabited originally by tribes called Pishacha, Yaksha and Naga who were ultimately overcome and driven out by the Brahmans from other parts of India. We find in ancient records mention of several sects, such as Nishad, Khasha, Dard, Bhutta, Bhiksha, Damra, Tantrin, etc., who were a regular menace to the Brahman settlers for several centuries. Buddhism came into ascendancy in the 2nd Century B.C. Its tolerant spirit and missionary fervour made a great impression on the people and large numbers embraced it readily. In the 14th Century A.D. the Valley was overrun by Muslim invaders who made conversions *en masse* wherever they penetrated. In later times, Sikhism and Christianity had their victories. However, notwithstanding this diversity of religious faiths the true inhabitants of the Valley have preserved a fairly distinct character. As the Imperial Gazetteer puts it, "The Kashmiri is unchanged, in spite of the splendid Mughal, the brutal Afghan, and the bully Sikh. Warriors and statesmen came and went; but there was no egress, and no wish on the part of the Kashmiris in normal times to leave their home. The outside world was far, and from all accounts inferior to the pleasant valley, and at each of the gates of the valley were soldiers who demanded fees. So the Kashmiris lived their self-centred life, conceited, clever, and conservative."

Those who live in the stretch of land running from the north-west to the south-west beyond the ring of the mountains which surround the main Valley are the men of Jammu, Poonch, and Dardistan—or, broadly speaking, the Dogras, the Chibhalis and the Dards. They belong to fighting races, and in the past were attacking the Valley from time to time or helping the other invaders. They are fearless and trustworthy, and remain loyal to those to whom they offer their allegiance. Some of the finest troops in the old Indian Army were recruited from them.

Temperamentally the people of these regions differ very much from one another. Writing about this, Pearce Gervis observes:

"The man of Jammu will sometimes smile, the man of Gilgit seldom, for with him life has been hard; the land from which he comes yields grudgingly. On the other hand the man from Poonch, who comes from midway between the two, both in the position of his State and the productivity of his lands, in his early years seems to prefer soldiering to working upon the land, to which he returns after he has earned himself a small pension. In all they are generally men that you can always rely upon; provided you are

Ambri, which is the sweetest and finest of the *Ambri*. Many of the wild apples, such as the *Tet shakr* and *Malmu*, are very refreshing. About the beginning of September the people pick the wild apples and the *trel* apples, and having cut them in half, dry them in the sun.

The pear is as yet of secondary importance, and does not form a large article of export. But several very good pears are cultivated, the best of which are the *Nak Satarwati*, which has a beautiful shape and a sweet juicy flesh, and the *Nak Gulabi*, which has a pretty red skin and is a very pleasant fruit. The Kashmiris, though they think it essential to peel an apple, never peel pears. They also hold that it is dangerous to eat pears in the winter. Cold in the head and the eyes is the result of such indulgence. The early pear is known as the *Gosh Bug* and is very refreshing, and the later fruit is called *Tang*. The wild pear is found all over the Valley.

The quinces, sour and sweet, are famous, and in the gardens of the Dal Lake splendid specimens of this fruit are to be seen. The tree is grown for its seed. Pomegranates are common, but are not of any special merit.

The walnut-tree is indigenous to the country, and is known by the vernacular name *vont dun* 'hard walnut', as under ordinary circumstances one is unable to break the shell. The fruit is useless, but the bark used to be a large export to the Punjab. The fruit of the cultivated tree is an important aid to the villagers. The tree is found all over the valley, from an elevation of about 5,500 feet to 7,500 feet. It is propagated from seed; and although grafting is not uncommon, the general idea seems to be that the three varieties—the *Kaghazi*, the *Burzal*, and the *Wantu*—reproduce themselves from seed. Hitherto walnuts have been grown for oil and not for eating, and the *wantu*, in spite of its thick hard shell, is the largest fruiter and gives the most oil. The *Burzal* stands half-way between the *Kaghazi* and the *Wantu*, and is like the ordinary walnut of England. Some of the trees reach an enormous size, and the finest specimens are to be found as one ascends the mountain valleys.

Large almond orchards are scattered over the valley, and many of the hill-sides might easily be planted with this hardy and profitable tree. It is a somewhat uncertain crop, but very little attention is paid to its cultivation and as a rule the almond orchards are unfenced. There are two kinds, the sweet and the bitter; the former is worth double the latter in the market.



FIG. 91. A group of Dogra folk-dancers

FARMERS OF INDIA

their friend they will stand by you, and come what may will never desert you in time of trouble. More particularly does this refer to the two northern states; never did the expression 'taken at face value' better apply. But they can be fanatical, these men, over their love affairs, and will desert and suffer anything to get those they have set their hearts upon, caste, creed and race meaning nothing; then, having got them, if young and attractive they will jealously guard them, if not, they will amazingly either ignore them or cast them aside after a few years or even months. It seems as though their desire is only to prove their ability to acquire and possess for a while, then interest goes. They are however men you can always trust with life and possessions, they will never rob a friend or master. If they hate, or if they discover that trust has been misplaced, then their hatred can be such that they will kill, that 'quality' being increasingly apparent as the land becomes the more barren and they can ill afford to carry those who are not friends. And although over the years each have been subdued by invaders, those who came did not find the task an easy one, for although beaten, the vanquished remained men, holding their heads proudly erect; they do not cringe nor even fawn."

Dogras. The settlers in the hills bordering the Punjab—in any case those who have retained their Hindu faith—bear the name Dogra, and the country they inhabit is called Dugar. The origin of the name, as explained by Drew, is as follows: "Near Jammu are two holy lakes, Saroin Sar and Man Sar; from these the country round was called in Sanskrit Dvigartdesh, or the 'country of the two hollows'; from this came Dugar, and from that Dogra."

The Dogras are divided into castes broadly in the same way as are the Hindus of India generally: these are partly the remnants of race-distinctions, and partly the outcome of occupations which have become hereditary. The following list gives the names of some of the castes in the order of importance.

Brahman

Rajput { Mians
 { Working Rajputs

Khatri

Thakar

Jat

Dhiyar, Megh and Dum

The Brahmans, of course, constitute the highest caste. To them here, as in other parts of India, is traditionally due from all other Hindus a spiritual subjection, and to those of them who are learned in the holy books it is actually given. They are now breaking through the confines of their hereditary occupation to join other more remunerative professions. We also find them tilling land in the Outer Hills, and in the villages north and north-west of Akhnur, they constitute a high proportion of the farming population.



FIG. 93. Women carrying manure in a Dogra village

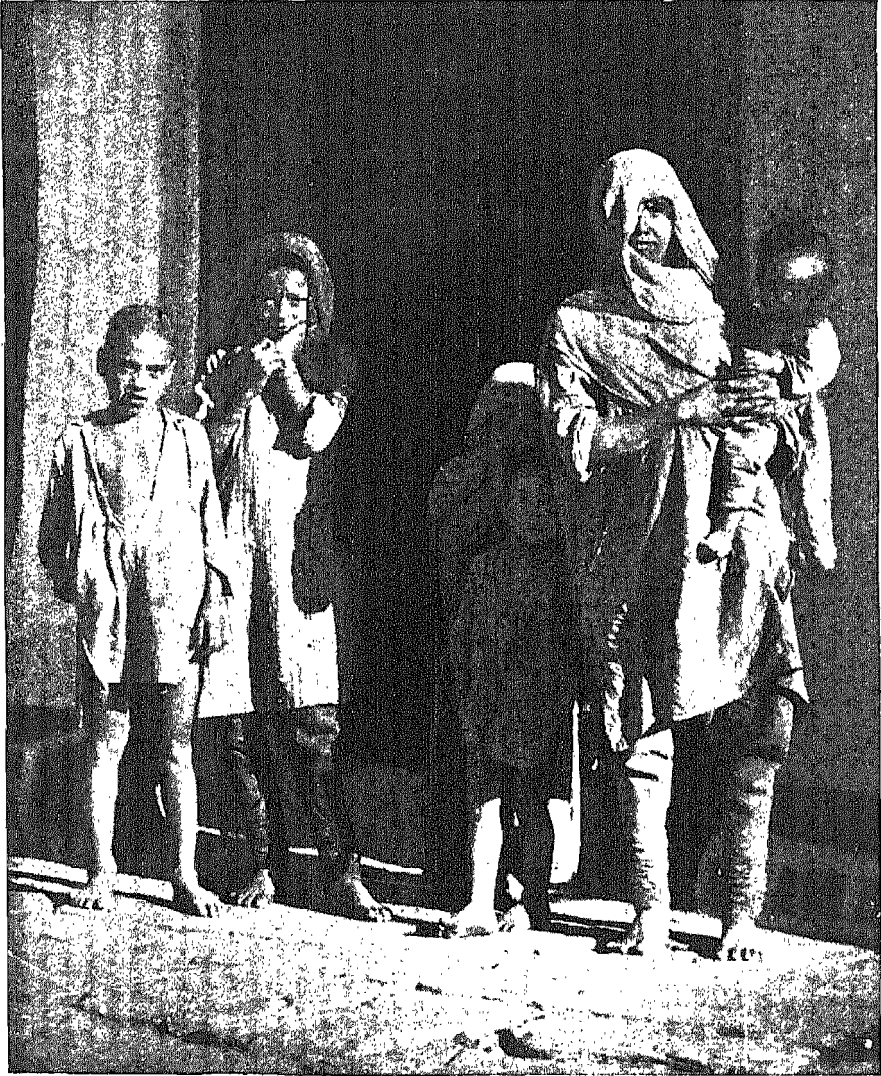


FIG. 92. A Dogra woman with her children

The caste next in social importance is that of the Rajputs. For many centuries past they have been the rulers of the country, and this has engendered a peculiar conceit in them. Particularly, the Mians have a great notion of their superiority over others.

They are not large men—we should take their average height to be about 5 ft. 4 in. They are slim in make with somewhat high shoulders, and legs not well formed but slightly bowed. They have no great muscular power, but are nevertheless active and untiring. Their complexion is of a comparatively light shade of brown, rather darker than the almond-husk, which may be taken to represent the colour of the women, who, being less exposed, have acquired that lighter tint which is counted as the very complexion of beauty.

The men have an intelligent face, small features, generally a slightly hooked nose, a well-shaped mouth and dark brown eyes. Their hair and beard are jet black; the hair is cut to form a curly fringe below the *pagri* or turban; the moustache is usually turned up eyewards.

In character the Rajputs are simple and childlike. If taken in the right way they are tractable, else they resent interference. If once fixed to a certain line of conduct, they would adhere to it obstinately. They stick closely to the prejudices they were brought up in, and are very particular about observing the caste regulations. In money matters many of the Rajputs (and, indeed, the Dogras generally) are avaricious and close-fisted.

The Rajputs have many sub-divisions, most of which sprang up as a result of the distribution of leading families in different principalities into which their hill country was formerly divided. Thus we have Jamwal, Balauria, Jasrotia, etc., as the names of those attached to, or possibly remotely connected by blood with the ruling families of Jammu, Balawar, or Jasrota. However, they can be divided broadly into two main classes: the Mians and the working Rajputs. The former follow no trade, nor will they turn their hands to agriculture. For a Mian to put his hand to the plough would be a disgrace. Most of them have a bit of land, either free or nearly free of land-tax, which they get others to cultivate for them. Their dwellings are generally isolated, being located either at the edge of or within the forest or waste so that hunting, which is their favourite pastime, may be pursued with the maximum freedom. Their profession is generally what they call 'service', meaning either military or State service which does not involve manual work. They make good soldiers and are faithful to their master. Warmth of temper, quickness of action and absence of tact, rather than steadfastness and amiability, are their most conspicuous characteristics.

The Working Rajputs are those whose families have, at various periods, taken to agriculture and have thus come down one step of caste. As agriculturalists they do not succeed so well as the older cultivating castes do.

Next come the Thakars who are the chief cultivating caste in the hills. In character they resemble the Jats of the Punjab, but the two are not related.



FIG. 94. Two Dogra youths

The dress of the Dards is woollen, except among those living in warmer tracts, who wear cotton clothes in summer if they can get them. The apparel consists of pyjamas, *choga* (or gown-coat), a waistband to confine this, and lastly, a cap and chaussure, both of peculiar construction. The cap is a bag of woollen cloth half a yard long, which is rolled up outwards at the edges until it gets to the size which would fit the head comfortably. For their feet they have strips and scraps of leather put under and over and round the foot, and a long thin strip wound round and round to keep all these in place.

There are five major sub-divisions of the Dards which may be called castes: (i) Roun; (ii) Shin; (iii) Yashkun; (iv) Kremin; and (v) Dum. The Yashkun are the most numerous of all the castes. In Gilgit and Astor they are the body of the people whose chief occupation is agriculture. It is probable that they and the Shin together made up the race (which we may call Dard) that invaded this country and took it from the earlier inhabitants. The Shin are the highest of the four castes. In some isolated places they make the majority or even constitute the whole of the community, but in Gilgit itself they are not so numerous as the Yashkun, nor are they so in Astor. They hold the cow in abhorrence, and look down upon it in much the same way as the ordinary Mohammedan do a pig. They will not drink cow's milk or eat or make butter from it, nor use cowdung as fuel. Some cattle they are obliged to keep for ploughing, but they have as little as possible to do with them thus, when the cow calves, they would put the calf to the udder by pushing it with a forked stick as they would not touch it with their hands.

PEOPLE OF THE VALLEY

The inhabitants of the Valley are an intelligent people, quick witted and good humoured. They are fond of the beauties of Nature and love singing. They accept their lot in a spirit of resignation, and attribute all misfortunes to bad luck.

Crime is almost unknown in the villages. Property is absolutely safe, and one seldom hears of a theft or murder. If there is a quarrel, the parties rarely go beyond hurling invectives at each other or knocking off a turban.

The Kashmiri can turn his hand to anything. He is an excellent cultivator when he is working for himself. He is an expert gardener and raises a good crop. He is also an excellent weaver and can make first-rate blankets. There are few middlemen in the villages, and he has to do most of his business himself. This has enabled him to develop a keen eye and deft hands, and he seldom makes a bad bargain. He is, however, conservative and would quote in support of his system of agriculture, and indeed in support of every act of his everyday life, some rhyming proverb or old saying. Like other artistic people, he is fond of exaggeration which is particularly noticeable in his dealings with officials and suits for land. In private life also he likes to exaggerate things. Everything which is unusual—be it

Chibhalis. The Chibhalis are known after the name of their country, Chibhal, which lies between the Chinab and the Jehlum in the Outer Hills region. The word Chibhal is most probably derived from Chib which is the name of one of the Rajput tribes. The Chibhalis, Mohammedans now, are, in fact, of the same race as the Dogras, who have remained Hindu. Several of their tribes have the same names as certain castes in Dugar. Thus, some of the sub-divisions of the Hindu Rajputs like Chib, Jaral, Pal, etc., exist also among the Mohammedans. Besides the Rajputs, many Mohammedanised Jats and Mohammedan Thakars are also found.

Of their appearance Pearce Gervis writes: "Here in this country are to be seen the fair complexions, the blue and the hazel eyes, the brown or gold-tinted hair. The men are in the main handsome, they are not as hard-looking as those of Gilgit; among the youths especially there is a blending with the rather effeminate young men of the Valley, but they are essentially men, their stride is long. They are taller than the others of the State, though not powerfully built, and it is seldom that one sees a fat Poonchi Muslim. Generally, their faces are long, the complexion light-brown; the nose large, aquiline and well shaped; quite frequently the black hair is wavy. In all they are a good-looking race, and this applies to both men and women, who even in their old age retain their good looks, the men then growing beards, and the eyebrows seeming to extend forward. What is more noticeable is that unlike the peasants and farmers of the Kashmir Valley and Ladakh, they are not filthy." The hold of religion on them is not tight; the independence of their rugged character asserts itself in spite of their faith. Their women go unveiled unlike their sisters over the mountains in Baltistan who scamper off on seeing a stranger—they just continue with their work as though unaware of the presence of the intruder. The men are firm and dependable, friendly if their devotion is won but cruel if cheated. Of their wives they demand absolute fidelity. Lapses are not forgiven.

Dards. The people of Dardistan are mostly Mohammedans; of both Shia and Sunni sects in Gilgit, of only Shia sect in Nagar, of the Ali-Ilahi sect (believing that Ali is God) in Hunza, and Mulahis in the other parts. They are broad-shouldered, moderately stout-built, well-proportioned people very active and energetic and good at mountaineering. Their bearing is independent and bold; they will not endure to be put upon, but stand out for their rights, and stand up against oppression as long as possible. They are by no means soft-hearted; but they are not disobliging when approached in the right way. As a race, they are decidedly clever and, if not so ingenious as the people of the Valley, are both clear-headed and quick. Such qualities as these make them a people that one must eventually come to respect—a people who are bold and, though not caring much for human life, are not blood thirsty; a people who will meet one on even terms, without sycophancy or fear on the one hand or impertinent self-assertion on the other.



FIG. 95. A Kashmiri family taking tea

wet weather, heavy snow or a hot day—is described in superlative terms. In addressing a superior he would call him *haz* or saint; an equal would be addressed as *sa*, a corruption of *sahib*; an inferior is called *ba* or brother.

The farmer is at his best in his home life. He is kind to his wife and children, and one rarely hears of divorce or scandals. A woman who has behaved badly is a marked character in the village and public opinion is always against her. The husband would sometimes chastise his wife, and then talk boastfully of the necessity of maintaining discipline in the family. But as a matter of fact, the wife is an equal of the husband. She is a real helpmate and joint work and joint interests lead to the closest comradeship between man and wife.

The clothes of the villagers are simple and drab in appearance. There is little difference between the garb of a man and woman, as they both wear a long gown which is buttoned at the neck and descends to the feet. Weight is given to the bottom of the gown by a deep hem, and sometimes this is artificially weighted in order to exclude the air and to keep in the heat of the *kangari*. The *kangari* is a small earthen bowl held in a frame of wicker-work. In the winter, and even in the summer, hot embers are put into it, and it is slipped under the voluminous gown. Small children use the *kangari* day and night, and few of the people have escaped without burn-marks caused by carelessness at night. The ordinary head-dress of a cultivator when he is at work is a cotton skull cap, but on special occasions he dons a white turban. Leather shoes are worn by the well-to-do and by most people on holidays, but the ordinary covering of the foot in the Valley is the leather or straw sandal, known as *tsapli* and *pulahru*, and the wooden patten for wet weather. Every Kashmiri can make his own *pulahru* from a wisp of rice straw.

It is a generally accepted fact that up to about the beginning of the fourteenth century the population of the Valley was Hindu, and that about the middle and end of the century the mass of the people was converted to Islam, through the efforts of Shah-i-Hamadan and his followers and the violent bigotry and persecution of king Sikandar, The Iconoclast. It is said that the persecution of the Hindus was so keen that only eleven Hindu families remained in the Valley. Their descendants are known by the name of Malmas, as distinguished from the fugitives as well as from the Hindus of the Deccan, who came to Kashmir later on and are known as Banamas.

The Hindus in the Valley are, with a few exceptions, of the Brahman caste, and though tradition points to the fact that the Levite Brahmins were a powerful and numerous body, exerting great influence over the country and its rulers, there is frequent mention of the fighting class, and it is obvious that a large majority of the old Hindus must have been agricultural Jats of the Vaisya division. There are, however, no traces of the Jats now. But still there are Khattris in Srinagar, known as Boharas, who are cut off from



FIG. 97. A Kashmiri woman pounding rice



FIG. 96. A fisherman of the Valley



FIG. 99. A young woman of Bakarwal (Chaupan) community

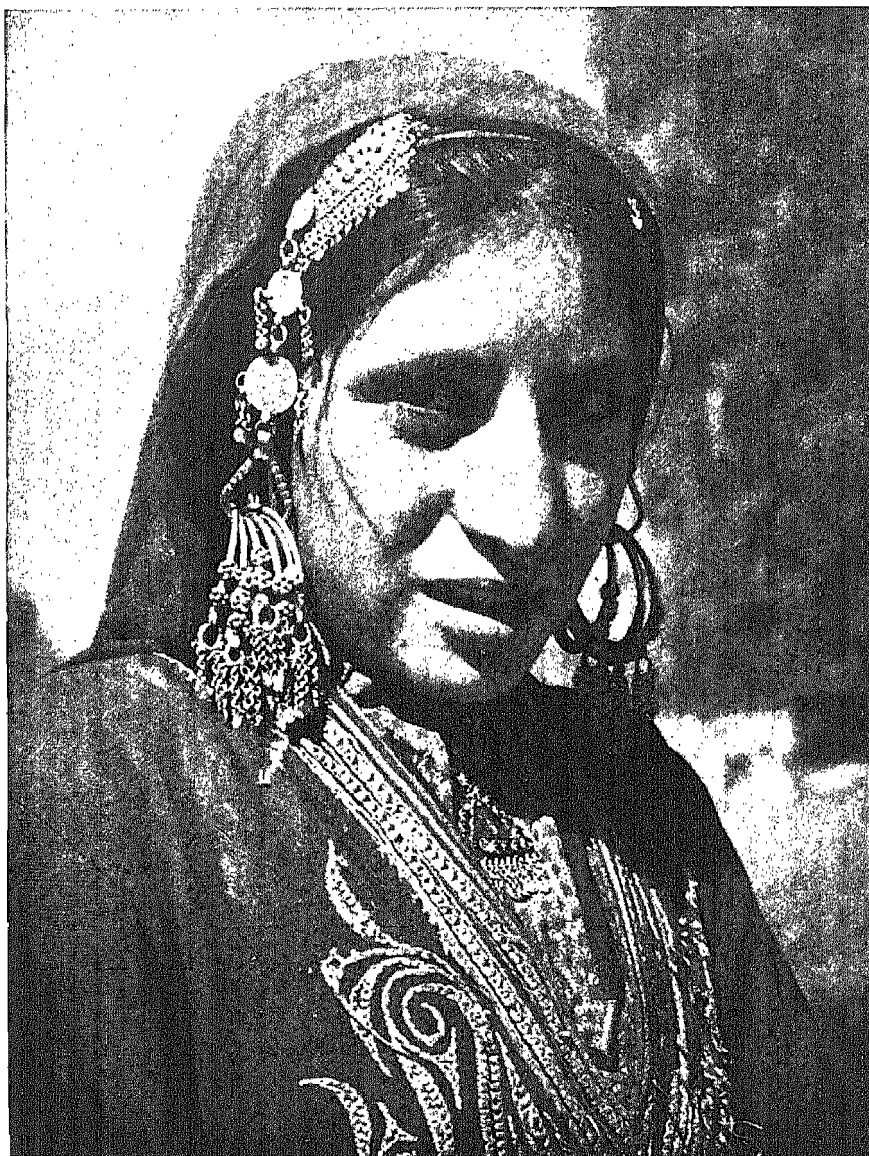


FIG. 98. A Muslim woman of the Valley in her traditional dress



FIG. 101. A village on Gulmarg Road



FIG. 100. A Hanji family relaxing after the day's work

communion with the Khatri of the Punjab. There are also certain Musalman tribes who trace their origin to Khatri ancestors.

A brief description of the major communities found in the Valley is given below.

Pandits. The Brahmans are commonly known as Pandits. They are divided into three classes: the astrologers (*Jotishi*), the priests (*Guru* or *Bachabat*), and the working class (*Karkun*). There are no inter-marriages between the priestly order and the other classes, mainly because the former is regarded as divine and, therefore, far removed from the run of ordinary men. But the *Jotishi* and *Karkun* Pandits inter-marry.

The *Jotishi* Pandits are learned in the *Shastras* and draw up almanacs in which prophecies are made about the coming events. The priestly class performs religious rites and ceremonies. However, the vast majority of the Pandits belong to the *Karkun* class and usually make their livelihood from State service. The *Karkun* regard the pen as their natural destiny; and though many have now taken to agriculture and many are engaged in business, they would generally prefer to spend their lives as clerks in some office.

The Pandits in the villages consider it no degradation to follow the plough and to carry manure; but the city Pandit is inclined to look down upon the Brahman agriculturist, and though he will take a wife from the villages he will not, if a man of any position, permit his daughter to marry into a village family.

The Pandits are a handsome race with fine, well-cut features, small hands and feet, and graceful figures. Their women are fair, graceful and distinctly good-looking. The children are very pretty.

Sikhs. The Sikhs in the Valley, who were originally Brahmans from the Punjab, can be distinguished easily from the native population by their long hair and beards, and also by their dress which does not include the effeminate gown usually worn by the Kashmiris. They are found chiefly in the *Trahal* pargana, *Krihun*, and *Hamal*. They are good farmers, but cannot compare with the Kashmiri Musalman in rice cultivation. They are men of slight build and not bad-looking.

Sheikhs. The majority of the Muslims in rural areas belong to the Sheikh sect; and though the *Saiyads* are also quite numerous, they as well as the *Mughals* and the *Pathans* are in a minority compared to the *Sheikhs*.

The *Sheikhs* have four important classes. The *Pirzads*, who are descendants of zealous converts to Islam, consider themselves equal to the *Saiyads* and inter-marry with them. The *Babas*, also descended from zealous converts, are now chiefly religious mendicants. The *Rishis* are the attendants at shrines established by the old ascetic recluses of Kashmir who were called *Rishi*, a corruption of the Sanskrit word *Rikhi*. The *Mullahs*, who form the priesthood, are divided into two classes: those learned in the law and variously designated as *Maulvi*, *Kazi*, *Akhund*, or *Mufti* and those who



FIG. 102. A Kashmiri mother

retire. In the winter and early spring the Chaupan lives in the villages, where he sometimes possesses a little arable land. The Chaupans and the Shirgujri or milk sellers often bear the *Kram* name Waggi.

Bands. The minstrels of Kashmir (Bhaggat or Band) can be recognized by their long black hair and stroller mien. They combine the profession of singing and acting with that of begging and are great wanderers, travelling down to other parts of India where they entertain Kashmiri audiences.

With the exception of the Akangam company, which is formed of Pandits, the Bands are all Musalmans. They are much wanted at marriage feasts; and at harvest time they move about in the country making a living from entertaining the cultivators. Their orchestra usually consists of four fiddles with a drum in the centre, or of clarionets and drums, but the company often contains twenty members or more. Their acting is excellent and their songs most pleasing. They are clever at improvisation and are fearless about its results.

Hanjis. The boatmen of Kashmir (Hanz or Hanji) are an important and prominent tribe. Nobody knows about their origin, but the profession is very ancient, and history affirms that Raja Parbat Sen introduced boatmen from Sangaldip. They were of the Vaisya caste, and even now the Hanjis of Kashmir, when blaming any of the crew for bad paddling, will say, 'You are a Sudra'. When questioned, they claim Noah as their ancestor.

The father is an autocrat in the family, and while his sons and daughters remain on his boat, all their earnings go to him. When a son wishes to marry, he must obtain his father's consent, which is often withheld, as there is little room for the young people in the Kashmiri boat.

There are many divisions in the Hanji tribe. There are the half amphibious paddlers of the Dal lake (Demb Hanz) who are really vegetable gardeners. They are also the boatmen of the Wular lake who gather the *singhara* nuts (Geri Hanz). These two sections hold their heads high among the other Hanjis. Next in respectability come the boatmen who live in the large barges known as *bahats* and *war*, in which huge cargoes of grain or wood are carried. The next class is that of the owners of the *dungas* or passenger boats *Nalla Mar*. Then there are the Gad Hanz, who are professional fishermen. Another small section of the tribe, known as Hak Hanz, make a livelihood by collecting driftwood in the rivers. The Dunga and Gad Hanz are famous for their invective powers and vocabulary of abuse, and when a quarrel arises between two families as happens often, one woman stands up on the prow of her boat and commences a torrent of sharp words to which a prompt rejoinder comes from her compeer in the other boat. The men remain seated listening with interest to the dialogue. If night sets in before the women are exhausted, they invert their rice baskets (*pai*), which signifies that the quarrel is not ended but laid aside till the following morning when the wordy warfare would be recommenced with fresh vigour.

have fallen in social position and are known as Mals. The latter wash and prepare the bodies of the dead for burial and dig graves, and they are not allowed to inter-marry with Mullahs or other Sheikhs.

Saiyads. The Saiyads may be divided into two sub-groups: those who follow the profession of religion (*Pir Muridi*) and those who have taken to agriculture and other pursuits. As compared with the Sheikh Musalmans they may be regarded as foreigners, though there is practically nothing in their appearance, manners or language which distinguishes them from other Kashmiri Musalmans. Some Saiyad families are much looked up to in the villages, but those who have taken to agriculture are practically on a level with the other villagers, and inter-marry with them.

Mir is the *Kram* name of the Saiyads. As long as a Saiyad retains the saintly profession, 'Mir' is prefixed to his name; when he takes to mundane pursuits the word becomes a suffix.

Mughals. The Mughals are not a numerous body in Kashmir, and have so much inter-married with the other Kashmiri Musalmans that all traces of descent has been lost. They came to Kashmir in the days of the early Musalman kings and also in Mughal times. Their *Krams* are Mir (a corruption of Mirza), Beg, Bandi, Bach, and Ashaye.

Pathans. The Pathans are more numerous than the Mughals, and are chiefly to be found in the Uttar Machipura tehsil, where Pathan colonies have been founded from time to time. The most interesting colony is that of the Kuki Kheyl Afridis of Dranghahama, who retain all the old Pathan customs, and still speak Pashtu. They wear a picturesque dress and carry swords and shields. They pride themselves on their bravery, and in the absence of a nobler foe engage the bear on foot with the sword, or spear him from their plucky little ponies.

Dums. The Dums are an important tribe, and till recent times have wielded great power in the villages. The village watchman was always a Dum, and in addition to his police functions he was entrusted by the State with the duty of looking after the crops.

Galawans. The Galawans, or horse-keepers, are considered by some to be the descendants of the Dums, and their dark complexion suggests that they are not of the same race to which the Kashmiri peasants generally belong. Others think that the Galawans are the descendants of the Tsak tribe.

Chaupans. The shepherds of Kashmir are known as Chaupans or Pohl, and though there is nothing in their physiognomy to distinguish them from the peasants of the Valley they form a separate race, inter-marrying sometimes with the Galawans. A Chaupan is a cheery active man with most characteristic whistle, and his healthy life in the high mountains makes him strong and robust. He has some knowledge of plants, and brings down medicinal herbs for the native doctors. The grazing lands are partitioned among the various families, and an intruder would very quickly prefer to

INHABITANTS OF NORTH-EAST MOUNTAINS

The communities inhabiting the country on the north-east of the main chain of mountains are Ladakhis, Champas and Baltis. They belong to the Tibetan race. The Ladakhis, who still retain the Buddhist faith to which the Tibetans in the east belong, have settled in small villages in parts of the Indus Valley and the side-valleys. The Champas are a pastoral class, leading a nomadic life in the upland valleys. The Baltis are that branch of the Tibetan race which spread at one time far into the Indus Valley and got converted to the Muslim faith.

Ladakhis. The Ladakhis have a Turanian cast of features which is often considered a patent of the Chinese. The cheek bones are high with the face tapering rapidly downwards. The chin is small and retreating. The eyes, brown in colour, are drawn out at the outer corners, and the upper eyelids are overhung by a conspicuous fold of the skin above. The nose is pressed, so to say, into the face and it is often depressed at the bridge. The mouth is large and inexpressive; the lips project but are not thick. The hair, which is black, is cut quite close in front and at the sides of the head; behind, it is collected into a plait or pigtail, which descends to the small of the back. Moustaches are almost always present, but they are small; the beard is very irregular and scanty. In stature the Ladakhis are short; the men measure about 5 feet 2 inches and the women 4 feet 10 inches. Both sexes are broad-made and strong. They are not a handsome race their best friends cannot deny that. As to the women, the best that can be said of their looks is that some of the younger ones are 'not so bad looking.'

The Ladakhis are a cheerful and good-tempered people, always ready for a laugh and a cup of *chang*, their home brewed liquor. And when drunk, they get to wrangling or fighting they forget about it afterwards.

Almost the entire population of Ladakh is Buddhist. It is divided into two sects called the Red Hats and the Yellow Hats, the former being the more orthodox and conservative of the two. On entering Ladakh one is struck by the number of its massive monasteries and heavily robed monks. Almost every family has a member wearing either the Lama's Red Cap or the dress of a *chomo* or nun. The pious Ladakhi keeps turning his prayer wheel and gazing in reverence at the monasteries which house hundreds of lamas.

Every monastery has agricultural land attached to it, and the produce together with the grain collected from the people at the harvest time is the chief means for its maintenance.

Despite their large numbers, the lamas command respect and are accepted as the religious preceptors of the people. The manifold functions of a lama as described by Major Gompertz in his book *Magic Ladakh* are as follows:

"He learns to read and write....He learns to patter charms and to intone the Buddhist scriptures—the Tengyur and Kangyr—one of one

The Hanjis are a hardy people, and though the occupants of the large barges have warm cabins for the winter, the Dunga Hanjis, in spite of their mud fireplace on which their food is cooked, find little protection against the cold. Half the tales about Kashmir and the Kashmiris can be traced to the imagination of the Hanji, who after the manner of the Irish car driver, tells travellers quaint stories of the Valley and its rulers. They are a clever people, and can do most things, from a big business in grain to cooking a visitor's dinner. Their favourite *Karms* are Dangar, Dar, and Mal.

Watals. The Watals have been called the gypsies of Kashmir. They are a peculiar people with a patois of their own. Socially, they may be divided into two classes: those who abstain from eating carrion, and are admitted to the mosques and to the Musalman religion, and those who eat the flesh of dead animals, and are excluded from the mosques. They are a wandering tribe, and though sometimes a family will settle down in a village, and will build a permanent hut, the roving instinct is too strong, and after a few years it would move away.

The principal occupation of the Watals is manufacture of leather. Their habitations, which are usually round wattled huts, are always at some distance from the cottages of the peasants. There they prepare the hides of dead cattle and buffaloes and the skins of sheep and goats, and rear poultry for sale. The Watal women are fine and handsome, and often drift into the city, where they follow the profession of singing and dancing.

Nangars. Besides the tribes already described, there are the menials of the village who are outside the pale of the peasant society. They are known by the name 'Nangar'. In a large village we find them working as carpenters, blacksmiths, potters, weavers, butchers, washermen, barbers, tailors, bakers, goldsmiths, carriers, oil-pressers, dyers, milkmen, cotton-cleaners and snuff-makers, and receiving either a fixed share of the harvest or cash payment. They have no hereditary land of their own except for the garden plots adjoining their houses.

Gujars. The Gujars belong to the semi-nomad tribe which grazes buffaloes and goats along the mountain fringe of the Valley. They build flat-topped houses for themselves and their cattle.

Their language, known as Parimu or Hindki, is wholly different from the Kashmiri language, and they rarely intermix with the Kashmiris, though, like them, they are Musalmans by religion. They are a fine tall race of men, with rather expressionless faces and large prominent teeth. Their one thought is the upkeep of the cattle, and when they take to cultivation they grow maize rather for the animals than for themselves. They are a simple, in-offensive and generous people. Their credulity is proverbial. Their women keep the accounts of the butter made over to the middleman by tying knots on a string. The favourite name among them is Muhammad, and a man of position among the herdsmen is always addressed as *Bhai* (brother).



FIG. 103. Lamas of Ladakh



FIG. 104. A group of Ladakhi women

hundred and eight large volumes, the other of, so far as I remember, sixty-three tomes.

"He learns the ritual of the services. . . . He learns also to play the religious instruments—the big warming pan-shaped drums, the little clarionets, the great telescopic brass and copper trumpets, six or seven or eight feet long. He learns also to spin the 'dorjes', the thunder-bolt symbols, of Lamaism—which are the main mark of the Lama; learns also to play the little double-sided drums, which are turned in the hand and so beaten by a small weight on a string as they twist backwards and forwards—little double drums, of which the best are made from the brainpans of two human skulls, and like the 'dorjes' are mighty weapons against demons.

"He is taught also how to make the ceremonial offerings of *chang* (a Ladakhi liquor) and barley, to build the pyramids of butter and parched grain which are piled up on festival days, learns too the charms against evil spirits which will for so much of his work later on when he goes out among the laity.

"And you meet him sometimes in company with an old lama—going out to celebrate a marriage or a funeral—bearing the little brass shrined images or the tomes of the scriptures, acting in fact as acolyte, and so learning the practical side of the business.

"Then, for such as show aptitude, there are arts and crafts to be learned—the printing of the scriptures by the use of wooden and metal blocks, the fashioning of images in metal or wood or plaster, the painting of the wall frescoes, without which no monastery would be complete.

"Again, there are horoscopes to be learned, the manner of selecting auspicious day for weddings, the selection of names for children, the choice of methods of disposing of the dead—an important business upon which may depend the hereafter of the departed spirit."

The Ladakhis are polyandrous. If the eldest son gets married, his wife becomes the legitimate wife of the younger brothers also. The children thus have an 'elder father' and also one or more 'younger fathers'. This system has served the Ladakhis well, exercising a natural check on the increase of population. The monks, both men and women, remain unmarried, though marriage is not expressly forbidden to them.

The only caste-division among the Ladakhis is that which divides the blacksmiths and the musicians (castes which are considered low and are called *Bem*) from the others. The priesthood does not constitute a caste; the office of the lama is not hereditary.

Their dress is simple; it is all woollen, of a coarse and thick home-made cloth. The men wear a *choga*, or wide and long coat, folded over double in front, and confined at the waist by a woollen *kamarband* or scarf. They wear nothing beneath this; with boots and cap, and may be an extra wrapper, their attire is complete. To the Ladakhi his boots are a matter of great importance. The stony ground, and in winter the biting snow, require

precautions. A piece of thick leather makes the sole, and is moulded round for the sides of the feet as well. The leg is further protected by felt gaiters, secured by a tape wound many times round. This chaussure is good against cold, and is not bad for climbing the steep hills where the ground is dry.

The women wear a striped gown with the skirt gathered into plaits. Over the shoulders is worn a shawl of sheep-skin, with the wool inside. For head-dress they have only a strip of cloth, ornamented with shells or rough turquoises and edged with fur. They wear the same sort of shoes as the men. The dress of neither men nor women varies with the season of the year.

Champas. The Champas are not very different from the Ladakhis. In their features they present minor differences, but the general physiognomy is the same. They are a most hardy and cheerful set of people. Living all their lives in a severely cold climate, and getting a scanty subsistence, they still have the best of spirits. When, after a day's journey, they collect round the scanty fire that is warming their evening meal, their merry laughter shows what a good heart they can keep in what, to strangers, seem to be the hardest of circumstances. Their lives are spent in tents; they stay for a month or two at a time in one spot, to graze their flocks and herds, and then they move with them wherever the advancing season promises better pasture.

The dress of the Champas is almost the same as that of the Ladakhis; only, some of them wear a long wide coat made of lamb-skin instead of woollen cloth.

As a rule, the Champas and Ladakhis do not inter-marry. The religion of the two is the same but it lies light on the Champas. Their youngmen do not become lamas.

Baltis. The Baltis are Mohammedanised Tibetans. They are quite of the same stock as the Ladakhis. However, traces of Turanian physiognomy are conspicuous in their features. The high cheek-bones are generally noticeable as also the eyes drawn out at the corners. Their eyebrows are often brought near each other with a wrinkling of the brow. The nose is not so depressed as it is in the case of the Bhots, the Buddhist Tibetans; nor are they quite so scantily bearded.

The Baltis have discarded the pigtail and partly follow the Mohammedan customs of shaving the head; only they leave long side-locks growing from behind the temples, which are sometimes lank, sometimes thick and curly, and sometimes plaited. In stature they are less thick-set than most Ladakhis, and taller too. This difference may be the effect of local circumstances, for in most parts of Baltistan the climate is less severe than that of Ladakh and the life led is somewhat comparatively easier.

In disposition the Baltis are good natured and patient. They are not so cheerful as the Bhots, but they are not lacking in humour. In adopting



FIG. 105. Masked dancers of Ladakh

Dogri. The Dogri is spoken in the outer Hills and in the strip of plain at their foot from the Ravi to a little west of the Chenab. It is spoken purest by those who have not mingled much with other races: especially it is to be heard pure and unmixed from the mouths of the women, who due to their seclusion have preserved the indigenous speech. In Jammu town, one hears a mixture of Dogri, Punjabi and Hindustani. It shows greater kinship to Punjabi than to Hindustani, though in some points it bears greater resemblance to the latter than to the former.

Chibhali. The Chibhali dialect differs from the Dogri in the same degree as the latter does from the Punjabi. It is only when a person hears these two languages spoken that he becomes aware of the difference.

Chibhali is closely allied to that form of Punjabi which is generally called the Pothwar or Western Punjabi. The change from Dogri to Chibhali in the hills corresponds to that from Punjabi to Western Punjabi in the plains, but there is less difference between Chibhali and Western Punjabi than there is between Dogri and Punjabi.

Pahari Dialects. These are met with in the Middle Mountain region and are allied in different degrees to Kashmiri, though the latter can always be distinguished from these. These dialects are: Rambani, Bhadarwahi, Padari, the dialect of Doda and Kishtwari. They represent a gradual passage from Dogri to Kashmiri and may, therefore, be aptly regarded as intermediate dialects. Rambani may be taken as the half-way stage between Dogri and Kashmiri, while Bhadarwahi, Padari, Doda and Kishtwari show marked advances from that stage towards the Kashmiri.

Kashmiri Dialect. It is the chief language of the people inhabiting the Kashmir Valley proper. Though it has been the mother-tongue of more than half the population, for centuries, it has never enjoyed the position of a common literary medium or the official language. It has all along remained a vernacular—the medium of intercourse among the common people—while Sanskrit, Prakrit, Persian, and English have been the court languages in different periods of history. But though languishing in comparative neglect, it has grown in its own way, absorbing the vocabulary of other languages and becoming a polyglot. Out of every 100 words of Kashmiri, nearly 25 are of Sanskrit extraction, 40 of Persian, 15 of Hindustani and 10 of Arabic. The remaining 10 are Tibetan, Turki, Dogri, and Punjabi. The language has a grammar of its own which appears to be allied to Sanskrit grammar. It is, however, highly inflectional, and offers not only forms of re-duplication, but also admits of changes within the root.

Dard Dialects. The most important of the Dard dialects are those of Astor, Gilgit and Dah. The Astor dialect includes or coincides with the speech of Dard and of Gurez. The Dah dialect is confined to the Buddhist Dards, who on account of their early separation from other Dard communities have preserved their own ancient language. The dialect in use in Gilgit is also different from other Dard dialects.

Islam, the Baltis dropped the custom of polyandry, and have since followed polygamy. This has resulted in a rather fast increase in the population, which is now much in excess of what the land can support. Many Baltis are, therefore, compelled to leave their country and to seek livelihood in other States. It is estimated that about a thousand men go abroad each year to work, but this is not enough, and the result is that whereas the coolies of Ladakh have clothes to wear, the peasants of Baltistan are comparatively poorer, thinner, and more scantily clad.

The dress of the Baltis is different from that of the Bhots, but it is made of the same material. Instead of the large loose coat, they wear one reaching a little below the knee; they also wear short pyjamas. They also carry one or two wrappers for their waist and shoulders. For the head they have a small round cap. The headmen use a woollen *pagri* or turban over the cap. The people go barefoot a good deal, but they carry with them, for wear in the colder parts, boots of soft leather (often of goat-skin) with the hair intact inside.

LANGUAGES AND DIALECTS

The inhabitants of Jammu Province on the left of the river Chenab use mainly the Dogri language, though many of them speak Punjabi also. The people of Mirpur, Poonch, Rajouri, Muzaffarabad, Ramban, Bhadarwah, and Kishtwar belong to the Pahari-speaking groups. Chibhali is common all along the western mountainous region. The people inhabiting the frontier *Illaga* of Ladakh and Baltistan speak Tibetan dialects. In Astor, Gurez, Dras, and Gilgit, the Dard language-group prevails. The main languages or dialects are as many as thirteen. It is possible to make a greater number of sub-divisions, since the speech is apt to vary in these mountain territories within very short distances, but the greater the number of sub-divisions one makes the less sharp becomes the dividing line.

The dialects may be classed in 5 different groups as follows:

Aryan

1. Dogri
Chibhali
2. Pahari Rambani, Bhadarwahi, Padari, dialect of Doda, and Kishtwari.
3. Kashmiri
4. Dard Dialect of Dah, dialect of Astor, Gurez, and Dras, dialect of Gilgit.

Turanian

5. Tibetan Language of Baltistan and Ladakh, language of the Champas.

CHAPTER XXIX

VILLAGES AND FARMERS' HOUSES

THE Kashmiri village is a picture of sylvan beauty and peace. Set amid hills and woods the cultivators' cottages peep out modestly through the luxuriant foliage. The poverty and squalor of the habitation are covered by the kindly plane-tree, the walnut, the apple, and the apricot. The sparkling stream nearby, or the languid waters of a lagoon, together with the rich shades of the tessellated fields build up a landscape of the most exquisite charm.

The character of the countryside shows to a careful observer marked differences in different regions of the State. The villages in the Valley are different from those in Jammu, as also from those in Poonch, Dardistan, Baltistan and Ladakh, which in turn differ from one another in many ways. The differences are highly interesting and deserve more than a passing reference. The description which follows will give some idea of the special features of the village organisation in various parts of the country.

JAMMU

Jammu is a distinct entity in the State. The climate is tropical, and the houses are built after the fashion of those in the adjoining areas of the Punjab. They have flat roofs, and are so laid out as to provide shelter against the heat of summer. The houses of the well-to-do peasants are usually two or even three storeys high, and are usually built of burnt bricks. Love of ornamentation is also freely indulged in to the extent the owner of a house can afford. The streets are narrow, long, and winding, giving the habitation a slovenly look.

POONCH

Poonch is a mountainous country where the hills and the precipices are just magnificent. The valleys are cleft out in such a way that it would seem that the whole area was once a great plateau, the softer stones and soils having been washed away and the granite thrown into rib-like formations over which wave upon wave of dark brown pines and firs rises in an endless continuity. The valleys abound in babbling brooks which run over smooth brown sandstone rocks. Foot tracks lead up from the water to lone farm-houses. Here and there is to be found a wider track which cattle have made or where the loaded mule is led. Flowers grow in profusion, and small fields of corn are to be discovered at odd spots. A village generally comprises a few houses scattered about the farms. Nearby are to be found little round huts, often built of straw, housing the mill-stones which grind the corn grown thereabouts. The villages are very clean and well maintained.

Tibetan Dialects. Of the varieties of the Tibetan language spoken in the upper valleys of Kashmir, the most important are: (*a*) language of Baltistan and Ladakh and (*b*) language of the Champas. There are local differences within the first sub-division—the Zaskar people speak somewhat differently, and also the people in the neighbourhood of Kargil, from the bulk of the settled Ladakhis.



FIG. 106. Houses in a Jammu village

FARMERS OF INDIA

DARDISTAN

Up to the 13,500 feet high Burzil Pass the country is well-wooded and reasonably fertile. But beyond that it is arid and bare, with high precipitous mountains and rough rock wastes stretching in all directions.

Gilgit is the most important place in Dardistan, and the Gilgit Valley is also the most fertile in the area. Wherever water is available, fruit, wheat, barley and rice are grown, but where cultivation has not been attempted, the land is barren. Villages in the sense in which they are generally understood are practically non-existent here. The hardships of life being very great, the population tends to group around the townships, and the hamlets built on the mountain sides present the appearance of an amphitheatre. The standard of sanitation is very low, and the habitations look like dirty patches on the clean wastes.

BALTISTAN

Baltistan extends for about 150 miles along either side of the river Indus on the northern border of Kashmir. It is indeed a strange land, for in some places glaciers are found while in others near the white marble rocks there are hot springs which record a temperature of 108°F. Set among very high mountains, through which there are only a few passes, the country has little in common with modern world.

Here and there, where a mountain stream flows, the Baltis have made full use of it, diverting it into their small plots of land. In this they show amazing ingenuity and sometimes the water channels run for miles before reaching the fields. Nearabout the farms are found small groups of flat-roofed houses, built of logs and covered with mud and sheltered by walnut or apricot trees. The village, if not dominated by a fortress or a chief's house, has as its principle building a mosque. This is usually built after the style of the Shah-i-Hamadan Mosque in Srinagar, and serves as the meeting place for the villagers. Above Shigar, the Valley is comparatively more fertile. There are to be found orchards of pear, walnut, apple and apricot, and fields which yield good crop of hay, buck-wheat, barley, beans and turnips. The bushes are red with berries in winter. The people dry the apricots and walnuts in the sun, and this forms the principal export from the province.

THE VALLEY

Inside the girdle of the mountains lies the Valley of Kashmir. Here, doubled up among the hills or nestling comfortably in the wooded vales are to be seen farms, granges and small hamlets. There is no crowding of houses; most cottages are fenced off from one another and have their own small kitchen gardens. Here and there one spots young women pounding rice. The children, if not tending the cattle, romp about in the streets. At some remove from the habitation is usually a stream or a lakelet where at all hours one may see some villager leisurely washing himself.



FIG. 108. Multi-storeyed houses in a prosperous village

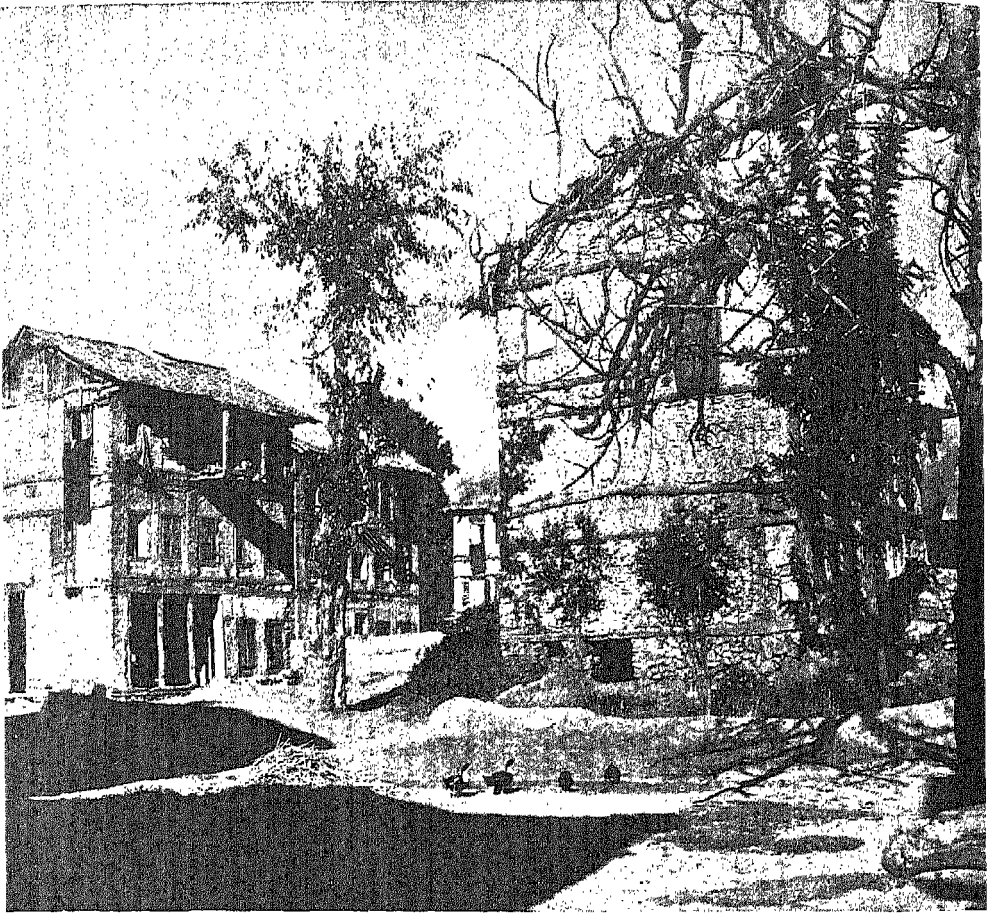


FIG. 107. A typical village of the Valley

VILLAGES AND FARMERS' HOUSES

The description of village houses given by Lawrence in *The Valley of Kashmir* still holds true and is, therefore, reproduced below:

"The houses are made of unburnt bricks set in wooden frames, and of timber of cedar, pine and fir, the roofs being pointed to throw off snow. In the loft formed by the roof, wood and grass are stored and the ends are left open to allow these to be thrown out when fire occurs. The thatch is usually of straw. Rice straw is considered to be the best material, but in the vicinity of the lakes reeds are used. Near the forests the roofs are made of wooden shingles, and the houses are real log huts, the walls being formed of whole logs laid one upon another, like the cottages of the Russian peasantry. Further away from the forests the walls are of axe-cut planks fitted into grooved beams. Outside the first floor of the house is a balcony approached by a ladder, where the Kashmiri delights to sit in the summer weather. Later the balcony and the loft are festooned with ropes of dry turnips, apples, maize-cobs for seed, vegetable marrows and chillies, for winter use. Sometimes in the villages one finds the roofs of the larger houses and of the shrines (*ziarats*) made of birch bark with a layer of earth above it. This forms an excellent roof, and in the spring the housetops are covered with iris, purple, white and yellow, with the red Turk's head and the Crown Imperial lilies. . . .

"On the ground floor the sheep and cattle are penned, and sometimes the sheep are crowded into a wooden locker known as the *dangis*, where the children sit in the winter. . . .

"The furniture of a Kashmiri house may be described briefly. There is none. In the villages and city alike, the people sleep on mats and straw, bedsteads being unknown. A cotton-spinning wheel, a wooden pestle and mortar for husking rice, a few earthen vessels for cooking, and earthen jars for storing grain, complete the interior of a Kashmiri house. The useful *kilta* is found in all. This is a large creel, which the Kashmiri straps on his back, and in which heavy loads are carried. The *kilta* is usually made of the withies of willow, Cotoneaster or Parrotia."

LADAKH

Ladakh, or 'Little Tibet' as it is often called, is virtually a Shangrila. Locked in by mountains rising to 25,000 feet, this 30,000 square mile valley of the lamas and monasteries defies both time and change.

It takes about an hour to fly from Srinagar to Leh, the capital of the Province; it takes sometimes weeks and even months to reach there on foot by the old caravan routes through the passes which are closed for half the year. No wonder few Ladakhis venture from their country, and when they do, have soon to return being unable to live in the denser air of the lower countries. The land has remained till very recent times almost sealed to the outside world. It, therefore, knows no crime.

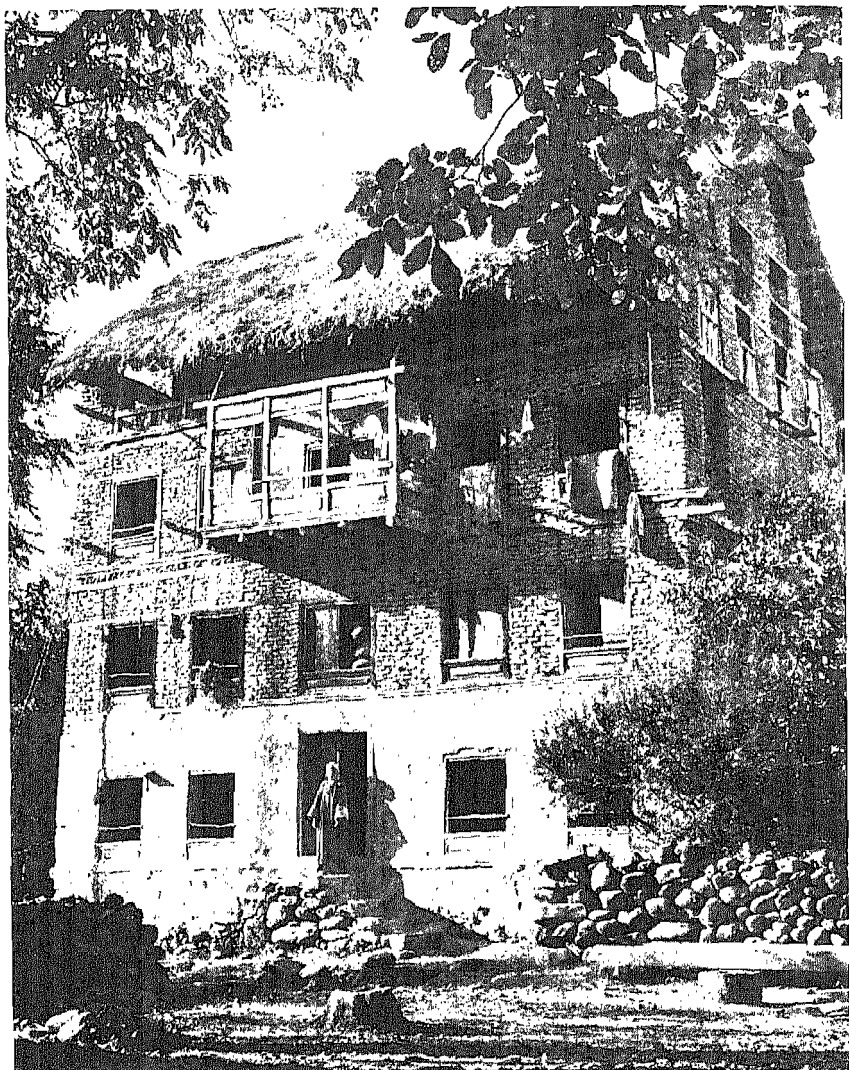


FIG. 109. A Hindu farmer's house

CHAPTER XXX

FOLKLORE

NOR so much its geographical isolation as the close adherence of its natives to tradition and custom has helped Kashmir to preserve its cultural integrity through the upheavals of history. Its old folk-tales, legends and myths are still alive and fresh; the traditional music, songs and dances of the peasantry continue to echo through the countryside, and the village bards still conjure up the past in all its vividness and glory. It was the ancient folklore from which Kalhana the author of 'Rajatarangini' constructed a continuous history of the land from the earliest times. It is the self-same folklore to which a modern student of humanities must repair if he seeks a living contact with Kashmir.

In the folk-songs of the Kashmiris ring stories of love, stories of heroes, and many tales of the legendary age. Then there are songs for each of the seasons—for the sowings, the harvest, the collection of saffron, etc.—as also for weddings, births and other social events. Whatever the theme, it is spun into a ditty of exquisite beauty.

The lonely maiden tired of waiting for her swain would pour out her heart in touching rhymes:

Towards Pampur went away my darling,
Saffron flowers caught him in fragrant embrace.

O, he is there and ah me! I'm here!

When, where, O God, would I see his face?

Or on the wedding night the beauty of the bride would prompt an old folk-song:

Our bride is robed in muslin,

Oh maid! who has dressed you?

Your beautiful eyes are crystal-clear,

Oh maid! who has dressed you?

Your teeth are so many pearls,

Who has delayed them from the sea?

You are a dealer in gems,

Oh maid! who has dressed you?

Walking, you dispel darkness like a torch,

You twitter like a *koel*,

Your love has soothed even depressed souls,

Oh maid! who has dressed you?

When Id is approaching and Ramzan is about to end, or at the harvest time, the country lasses come out on moonlit nights and sing and dance for hours. They show a remarkable ease in weaving rhymes. There is a

Ladakh is a country of extremes and contrasts. Its climate is of a severe kind—very hot in summer and intensely dry and cold in winter. Piercing winds blow in autumn. Rainfall is scanty, and so is vegetation. But the ibex, the snow leopard, the Tibetan antelope and the goat thrive.

A couple of houses go to make a Ladakhi village. These are perched on the steep hillsides which would seem impossible to climb. The fields grow barley, wheat, buck-wheat, peas, beans and rapeseed. The fruit trees bear apricot, apple and mulberry. The land is ploughed with an animal called *zho*, an ever-grunting beast, which is a cross between a yak and a cow. Irrigation is done by means of small canals. But despite hard struggle, the Ladakhi peasant wrests only a small reward from niggardly Nature. This, however, does not prevent him from being always cheerful.

Women work along with their men-folk in the fields, and at the time of ploughing or harvesting the whole family gets busy. During breaks, they gather together for tea or for meals. The strain of the labour is lightened by songs and dances. The evenings are brightened by the *chang*, the local brew prepared from *grim*, a kind of barley.

Hafiza Dance. Hafiza, an important dance of the Valley, shows marked traits of Sufi influence. Till 1920, the Hafiza dancing girls were greatly in demand during weddings, *melas* and outdoor parties. They belonged to a class of professional dancers. The orchestra accompanying them was invariably of the *sufianakalam*-type *santur*, *saz-i-Kashmir*, *sitar* and *tabla*. They sang Kashmiri and Persian couplets and *ghazals* explaining the meaning with appropriate gestures and movements of hands, feet and eyes.

The dress worn by a Hafiza dancer generally corresponds to that worn by the classical dancers of North India: a tight fitting short blouse and a skirt of enormous width which is worn gathered tightly about the waist. A *dopatta* of diaphanous silk is draped on the head and shoulders, and traditional Kashmiri jewellery, such as, large *kundlas* or ear-rings, *talraz*, *balis* and necklaces are worn.

Usually, two Hafiza girls take part in the performance. The dance begins with music, the Hafizas taking up the refrain with suitable movements and gestures. They move in a semi-circle with short steps, gliding effortlessly across the floor. The movements of feet require great agility and long practice, and so do the movements of eyes through which various moods and emotions are expressed.

Hafiza dancing is popular among all classes of people. Usually, public performances are arranged with funds collected from voluntary subscriptions. Many a European traveller to Kashmir has testified to the spotless lives led by the Hafiza dancing girls who are as much devoted to their art as to religious observances. However, this beautiful dance is now on the decline as it has lost the patronage of the aristocracy.

Bacha Nagma. This form of dance is an adaptation of the Hafiza style. A boy in his teens is trained in the art under the supervision of an accomplished Hafiza. He is made to wear his hair long and to don a dress similar to that used by Hafiza dancers. Instead of an elaborate and highly skilled orchestra which accompanies the Hafiza, the *shahnai* and an ordinary *dholak* provide the music. The dance is particularly popular during the harvest season.

Wattal Dumhal. This is a dance of the wandering tribes of Wattals. It is performed at the time of festivals and *melas*. About 30 to 40 young men put on colourful robes and conical caps studded with trinkets of cowry shells, glass beads, and silver pendants. The performance begins with a slow pacing around the banner of the festival, to the beating of the drum. As the tempo increases, both the drummers and the dancers accelerate their movements, jumping, yelling and making all kinds of vigorous gestures. When the dance reaches its highest pitch, the beating of the drum stops suddenly and the dancers come to an abrupt halt. After a few minutes' rest the performance is repeated, and this continues till the *mela* ends.

Rouf Dance. The Rouf is essentially a women's dance. On festivals and during the harvest season, the village green and the river banks resound

nursery-rhyme freshness, a certain Hickery-Dickery-Dock rhythm in their songs, which beautifully harmonizes with their lusty spirits and youth.

The Kashmiri folk-song is a blend of highly charged emotions. If we were to describe it in one word, we might call it *lol*, a Kashmiri word signifying an untranslatable complex of love, longing and a tugging at the heart, "a longingness—'poor mortal longingness'" in Walter de La Mare's phrase.

In the spring season when the flowers are in bloom, the young maiden waiting for her absent lover bursts out as follows:

Flowers have blossomed in all their hues,
Love, where are you?
The rose has come, graceful and lovely,
The tuberose, the balsam, and the *Sonaposh* have bloomed,
The Larkspur and the hyacinth burst daintily into bloom,
Love, where are you?

But he does not come; and the yearning deepens, and so deepens the anguish of separation:

The distant meadows are in bloom,
Hast thou not heard my plaint?
Flowers bloom on mountain lakes,
Come, let us to mountain meads;
The lilac blooms in distant woods,
Hast thou not heard my plaint?

Then comes the questioning and doubting of Love's fidelity. Even patience has a limit, and she begins to accuse him, the reckless, the inconstant, 'the visitor of a hundred homes, the luxury-mad, the voluptuary':

Over passes high I carried him wine,
But he is roaming 'mid sylvan glades.
O why does he dwell in the distant glades?
O where is he drunk with my rivals' wine?

There are other moods also but the tone is usually the same: plaintive, wistful, melancholy. These songs have relieved the tedium of the life of Kashmiri women for centuries, who find in them a sincere echo of their own emotions.

FOLK-DANCES

As elsewhere in India, dancing in Kashmir had its origin in religion and religious practices. The temple dancers played an important role in its development. It appears from some passages in the *Rajatarangini* that dancing in the temples was a hereditary profession in some families. This tradition did not die with the advent of Islam, as the cult of *Sufism* which had ascendancy over the more orthodox Muslim faiths tolerated dancing and music as aids to God realization. This led to the synthesis of Indian and Persian forms of dancing into new styles.

FOLKLORE

saintly figure who utters charms and incantations, but soon they return moving their daggers. Then comes the great stag-headed, blue-faced god of Hell with his sword, and stands over the corpse. He brandishes his sword as if to cut it to pieces. Yet, somehow, he misses it, and is driven out by some benevolent figure. Thereafter, the scene turns comic. An old teacher enters, a fat masked buffoon, who can hardly walk. He is attended by a riotous train of impish school boys in pink masks. He installs himself on the seat and proceeds to teach his flock, who jeer at him as also at his attempts to reach them with his stick. This horse-play continues for a long time and provokes lot of laughter.

to the song and dance of Rouf parties. Two rows of 10 to 15 dancers form a chain by laying their arms across one another's back. Dressed in festal garments and singing a simple and charming song, they move in step backwards and forwards, each party taking up the refrain of the song by turn.

Though not comparable to the Wattal Dumhal, in vigour and enthusiasm, the Rouf dance has a peculiar charm and its haunting tunes linger long after it is over.

Hikat Dance. The Hikat is a common dance performed by young country girls and boys in groups. With their hands gripped crossways, each pair of dancers spins round and round with their heads and bodies thrown backwards. No musical instrument accompanies the dance. As the tempo of the performance rises, the spinning becomes faster and faster.

Bhangra Dance of Jammu. Jammu has developed a distinct style of dancing. The Bhangra is the most popular of all folk-dances in the region, as its vigorous movements are in keeping with the martial instincts of the Dogras. It is performed only by men on *melas* and festivals to the accompaniment of the beating of *dhols*. The spectators are thrilled by the gusto of the dancers who look as if possessed by a mighty spirit.

Masked Dances of Ladakh. Living in a country of gigantic mountains and howling winds, the Ladakhis express their fears of and submission to indomitable Nature through their famous masked dances which are accompanied by their shrilling *shwams* (long copper trumpets) and the resounding drums. These dances invariably depict the victory of good over evil. They are performed at the monasteries and attract large crowds not only from different parts of Ladakh but also from far away places like Lahaul, Kashmir Valley and Jammu.

The dance is performed in the special courtyard of the monastery and continues from the early hours of the morning till late in the evening. It depicts the various stages of the struggle between the good and the evil forces. The actors and musicians are the Lamas.

The dance commences with the blowing of trumpets, cymbals and circular drums. A party of 15 to 20 Lamas in black hats come to the stage and sprinkle holy water from the vessel which they carry under their arms. After this, another party, guised as half human and half demoniac figures, occupy the stage and with their grotesque gestures try to lead astray the human soul from the path of salvation. Exactly at the time when the soul is about to succumb to the forces of evil, a party of dancers dressed in soft-coloured robes and wearing pleasing masks appears on the scene and drives out the demons. As they withdraw, the ghouls enter with skull-shaped masks and long fingers and toes. In appearance they resemble the human skeleton. Their tight fitting garments are ribbed in red to represent the bones. They dance fantastically round the corpse dashing up to it and threatening it with their ghost daggers, dashing away from it with wild shrieks and sweeping in again to dash out once more. Sometimes they are chased by some

GLOSSARY

- Chhallā*: *Anguthi*, finger ring.
Chhatris: Cenotaphs.
Chhinka: A basket suspended from the roof.
Chir: *Pinus longifolia*.
Chira: Coloured turbans worn by young men.
Chirman weed: *Ranunculus* sp.
Cho: Hill torrent.
Choga: Loose type of coat.
Chola: Loose frock.
Chopal: Common meeting place in a village.
Choti: A tuft of hair grown specially by Hindus.
Chuba: Counterpart of Chapkan in female dress.
Chura: An ornament of the wrist.
Chutki: An ornament for the nose.
- Dabkarana*: Eradication of weeds.
Dafi: Verandah surrounding the second storey of a house.
Dag: Cattle.
Dahi: Curd.
Dal: Pulse.
Dandal: A curved local implement with 8 or 10 bamboo teeth.
Dangli: A sort of wooden locker.
Daranti: A small curved implement for cutting crops (sickle).
Darwaja: Door.
Demb: A peculiar kind of land.
Deodar: *Cedrus deodara*.
Deorhi: A lodge.
Deotas: Gods.
Desi: Local, indigenous.
Devata: God.
Dhal: Ploughing for breaking clods.
Dhanaks: Weavers.
Dhania: Coriander seed.
Dharamsala: Rest house.
Dhars: Grazing ground.
Dhatu: Square-cloth head dress of ladies.
Dholak: Drum.
- Dogru*: A local variety of *singhara*.
Dohar: Double sheet of cloth.
Dohtra: Daughter's son.
Dopai: Mid-day meal.
Dopattas: Head-cloth.
Dora: Sheet.
Dud Ambri: A variety of apple.
Dungas: Passenger boats.
- Fikal*: A type of grass.
Fir: Silver fir.
- Gachi*: Girdle.
Gaddi: A folk-dance of the Punjab.
Gali: Street.
Ganhar: Amaranth.
Gatware: Enclosures for fodder.
Ghagris: Skirt.
Ghara: Earthen pot (pitcher).
Ghat: A bathing place at the bank of a river or a pond.
Ghee: Clarified butter.
Giddha: A folk-dance of the Punjab.
Goharas: Pyramid like structures for storing dung-cakes.
Gokhru: An ornament of the wrist.
Gosh bug: Early variety of pear.
Grim: A kind of barley.
Gupan nind: Fields of mud.
Gurgabies: Pump shoes.
Gurj: Club.
Guru: Teacher.
Gurudwara: Sikh temple.
- Hal*: Plough.
Harijan: Scheduled caste.
Haveli: Mansion.
Haz: A word for addressing a superior person.
Hazar: Thousand.
Huqqa: An Indian apparatus for smoking tobacco.
- Illaga*: A part of an area (zone).

GLOSSARY

- Abadi*: Habitation.
Ajwain: *Carum copticum*.
Ambri: A variety of apple.
Amla: *Phyllanthus emblica*.
Amultas: *Cassia fistula*.
Anbru: A variety of apple.
Anger: Embers.
Arhar: A pulse (*Cajanus cajan*).
Arsi: An ornament for the thumb.
Ashlmi: Eighth lunar day.
- Bahats*: Barges.
Baisakhi: A famous festival of the Punjab.
Baithak: Drawing room.
Baijhar: Gram and barley mixed.
Bajra: A species of millet (*Pennisetum typhoideum*, Stapf and Hubbard).
Baju: A string of rupees.
Bakhal: Unirrigated land.
Bakhal Kiar: Land which is occasionally flooded by streams.
Bala: Ear-ring.
Buluk: An ornament for the nose.
Bali: An ornament for the ear.
Bolu: An ornament for the nose.
Band: An ornament for the forearm.
Bani: Social and religious songs.
Banjar: Poor and unirrigated land in high hills.
Barani: Rainfed land (unirrigated).
Basmati: Finest variety of rice in India.
Bathu: Amaranthus, a species of millet.
Batta Satta: Marriage by exchange.
Bauhnta: An ornament worn by ladies on the arms.
Beali: Supper.
Ber: *Zizyphus jujuba*.
Bhaggats: Worshippers or devotees.
Bhai: Brother.
Bhang: A narcotic plant (*Cannabis sativa*).
- Bhangra*: A folk-dance of the Punjab.
Bharoli: A large jar shaped receptacle for grain.
Bhart: A pulse (*Cajanus bicolor*).
Bhat: Boiled rice.
Bhatti: Fire-place.
Bhoj-patra: Leaves of *bhoj* tree.
Bhuj: Birch.
Bhukran Kathela Bharota: A wooden club used for crushing stiff clods of earth.
Biali: Dinner.
Bindli: An ornament for the brow.
Biswai: A sort of gown worn by women in Rampur tehsil.
Bitore: Fuel.
Brahma: Lord of creation.
Bukhari: Small store for keeping clothes and vessels.
- Chadar*: Sheet of cloth.
Chadru: Blanket.
Chakki: Hand-mill.
Chala: Field peas sown in November.
Champakali: An ornament of the neck.
Chang: A type of home-brewed barley beer.
Chankan: A frock like garment worn by man.
Chapaties: Breads.
Chappar: A village pond.
Charpai: Cot.
Chhatta: Broadcast method of sowing seeds.
Chaubara: A small upper chamber on the roof of a house.
Chauk: An ornament for the head.
Cheena: A species of millet (*Panicum milliaceum*).
Chela: Disciple.
Cheng: A kind of Ladakhi liquor.
Chera Bhotun: Kashmiri name for Baltistan.

GLOSSARY

- Mahi*: A wooden leveller attached to plough.
Maki: Maize.
Mala: An ornament for the neck.
Malah: Boatman.
Mali: Gardener.
Malmu: A variety of apple.
Mandal: A condiment.
Manja: Local plough, cot.
Manji: Light bedsteads.
Manu: Well-known Indian law-giver.
Mash: A pulse (*Phaseolus radiatus*).
Masur: A pulse (*Ervum lens*).
Mela: Fair.
Menhara: Separate tenements for buffaloes.
Mezan: Commencement of autumn.
Mirasi: Bard.
Moth: A pulse (*Phaseolus aconitifolius*).
Mothi: do.
Mulmul: Muslin.
Mung: A pulse (*Phaseolus mungo*).
Murki: A sort of ear-ring.
- Nabadi Trel*: A variety of apple.
Nagara: Big drums.
Naindu: Mutual feasting.
Nak Gulabi: A variety of pear.
Nak Satarwati: A variety of pear.
Nambal: Peaty soils.
Naqual: Clown.
Nauroz: Spring day of musalmans.
Nuhari: Morning meal.
Nullahs: Streamlets.
- Ogra*: Lower portion of a house used for keeping cattle.
Ohi: Water buffalo.
Opla: Cowdung cakes.
Orhna: A sheet of cloth worn by women to cover the head.
Ori: Building for sheeps and goats.
- Pachheki*: Silver bangle.
Pagri: Turban.
- Pagti*: A sort of lady's gown.
Pahur: Cakes.
Paijamas: Trousers.
Pakori da raita: A curd dish.
Panas: Wards.
Parda: Custom of confining women indoors.
Patun: Shoes.
Patlu: Blanket.
Patni: An irrigation applied for preparing seed-bed.
Pazele: An ornament for the feet.
Peerhis: Stools made of reeds or cane.
Phaf: Yeast.
Phar: Middle portion of a house used as a store house or sleeping floor.
Pharalu: An ornament of the ear.
Phimra: A mixture of wheat or amaranth with rice and vegetables.
Phirni: A circular road.
Phul: Flower.
Phullu: An ornament for the feet.
Piclak: A brass brooch used by ladies to fasten their gown.
Pinda: Body.
Ping: *Panicum miliaceum*.
Pipal: *Ficus religiosa*.
Pita: Father.
Pokar: Cones of mud and weeds.
Ponchi: An ornament for the wrist.
Pora or nali: A tube for sowing seeds.
Prohit: Family priest.
Pucca: Metalled or cemented.
Pulahru: Straw sandal.
- Qamiz*: Long shirt for women.
- Rabri*: Block milk, gram or *jowar* allowed to ferment in buttermilk and then cooked.
Radh: Floating gardens.
Ragi: A species of millet (*Eleusine coracana*, Geertn).
Raja: King.
Ramba: A small iron instrument for removing grass roots, and weeds.

GLOSSARY

Jach: Festival.
Jagras: Vigils.
Jambasi Trel: A variety of apple.
Janam: Birth.
Jand: *Prosopis spicigera*.
Janeo: Sacred thread.
Jhinjni: A red variety of rice.
Jhulas: Swings.
Jhumar: A folk-dance of the Punjab.
Jhumku: An ornament for the ear.
Johar: Pond.
Jot: Lamp.

Kabaddi: An Indian game.
Kadali: A local plough.
Kadhs: Channels.
Kadrolis: *Chapaties* made from *koda* flour.
Kaghazi walnut: Thin shelled walnut.
Kahars: Palanquin carriers.
Kahi or *kassi*: A mattock.
Kail: Blue pine.
Kala zira: Cumin (*Carum* sp.).
Kalar: Breakfast.
Kalpa: Era.
Kals: Small streams drawn from rivers.
Kamarband: A cloth band worn round the waist.
Kambar Ka: September rain.
Kamri: Vest.
Kanan: One-eyed.
Kanan: Ear.
Kangan: Bracelets.
Kangar: A variety of *singhara*.
Kangari: A small earthen bowl for keeping hot embers.
Kangni: A species of millet (*Pennisetum italicum*).
Kangni: Wristlet.
Kankar: Pebbles, nodular calcium carbonate.
Kantha: Necklace.
Kapas: Cotton.
Kappi: Concoction of rice and mustard leaves stewed.

Karewa: Irregular Rajput marriage.
Kari: An ornament for the feet.
Karkhanadars: Factory owners.
Karkun: Working class.
Karhi: A folk-dance of the Punjab.
Kasi: Plain anklet.
Katchh: Underwear.
Kauravas: A dynasty of rulers during Epic Age (Mahabharata Times).
Kenalu: A local method of sowing rice in Kashmir.
Khadar: Home-spun cloth.
Kharsu: A variety of oak.
Khatoni Trel: A variety of apple.
Khuddu Sari: A variety of apple.
Kher: Method of dropping seeds.
Khijri: Porridge.
Kiar: Land irrigated from water courses.
Koda: A species of millet, *Eleusine coracana*.
Kodal: A local plough.
Kopatta: A shawl worn by a woman across her head.
Kulath: A pulse (*Dolichos uniflorus*).
Kulbara or *chihan*: Axes for cutting wood.
Kultharni: Land on which an inferior crop such as Kulath (*Dolichos uniflorus*) is grown every year.
Kulthi: A pulse, *Dolichos biflorus*.
Kurhat: Shed for the cows and bullocks.
Kurti: Bodice.
Kuth: *Saussurea lappa*.

Lanas: Agricultural partnership.
Laphi: A kind of porridge made from *koda* grains.
Lassi: Buttermilk.
Latkan: An ornament for the nose.
Lohala: Plough-share.

Mach: A wooden leveller.
Mah: A pulse (*Phaseolus radiatus*).
Maharaja: King.

APPENDIX

GLOSSARY

Rangan: A pulse (*Dolichos sinensis*).
Rasoi: Mid-day meal.
Ropa: Level irrigated land.
Roti: Baked bread popularly known as *chapati*.

Sabat: A partly enclosed and sheltered corner of the yard.
Sag: A dish prepared from leafy vegetables.

Sal: *Shorea robusta*.

Salwar: A baggy trouser worn by women in N. W. India.

Sambih: An ornament for the breast.

Sangtra: Orange.

Sanjhar: Land irrigated from rain water collected in pools.

Sankrant: A religious day.

Saran: Flat roof.

Sarson: Mustard.

Sehnai: A typical type of Indian flute.

Shahi: Imperial.

Shahidis: The ballads of warfare.

Shahr-bash: Resident of a city.

Shahtut: Mulberry.

Shikara: A swift moving boat.

Shil: Mid-day meal.

Shisham: *Dalbergia sissoo*.

Shivaratri: A festival.

Shiwalas: Temple of Shiva.

Sil Trel: A variety of apple.

Sindhu: Cakes made of barley or maize flour.

Singhara: *Trapa bispinosa*.

Siris: *Albizzia lebbek*.

Sisu: *Dalbergia sissoo*.

Sohaga: A light wooden roller.

Sur or Lugari: A kind of weak acid beer.

Surhzamin: Black soil.

Suthan: Lady's baggy trousers.

Takli: Instrument for spinning wool.

Tangh: Leg.

Tao: A local method of sowing rice in Kashmir.

Taramira: An oilseed (*Eruca sativa*).

Taur: A climber (*Bauhinia vahlii*).

Tehmat: A long cloth tied round the waist.

Thalli: Sheet of cloth worn by ladies.

Thapa: Red impressions of hand on the walls of a house.

Thippu: Kerchief used as a head-gear.

Thodas: Archery.

Til: An oilseed (*Sesamum indicum*).

Tirath: Pilgrimage.

Tirsul: Trident.

Topu: Cap.

Toria: An oilseed (*Brassica napus* var.).

Traingul: A three pronged pitch fork.

Trel: A variety of apple.

Trumba: Buck-wheat.

Tun: A pulse (*Cajanus indicus*).

Uggu: Withdrawal of social relations.

Vaisya: Trading community.

Valgan: An open courtyard.

Vikrami: An era starting from King Vikram.

Vishnu: God of Preservation.

Vont dun: Hard walnut.

Wan: *Salvadora persica*.

Wantu: A variety of walnut.

War: Boats.

Waras: Brushweed enclosures.

Wattar: Condition of soil suitable for ploughing.

Zaid kharif: Extra crop.

Zamindar: Land-lords.

Ziarats: Shrines.

APPENDIX

TABLE I. Districts and Tehsils of Punjab State

Districts				Tehsils	
1.	AMBALA	..	..	..	i. Ambala ii. Jagadhri iii. Kharar iv. Naraingarh v. Rupar
2.	AMRITSAR	..	..	..	i. Amritsar ii. Ajnala iii. Patti iv. Tarn Taran
3.	BHATINDA	..	..	..	i. Bhatinda ii. Faridkot iii. Mansa
4.	FEROZEPUR	..	..	..	i. Ferozepur ii. Fazilka iii. Moga iv. Mukthsar v. Zira
5.	GURDASPUR	..	..	..	i. Gurdaspur ii. Batala iii. Pathankot
6.	GURGAON	..	..	..	i. Gurgaon ii. Ballabgarh iii. Ferozepur Jhirka iv. Palwal v. Nuh vi. Rewari

APPENDIX

TABLE I. Districts and Tehsils of Punjab State—(*Concluded*)

Districts				Tehsils
14.	MOHINDERGARH	..	..	i. Mohindergarh ii. Dadri iii. Narnaul
15.	PATIALA	..	..	i. Patiala ii. Nabha iii. Rajpura iv. Fatehgarh Sahib v. Nalagarh vi. Kandaghat vii. Dera Bassi
16.	ROHTAK	..	..	i. Rohtak ii. Gohana iii. Jhajjar iv. Sonapat
17.	SANGRUR	..	..	i. Sangrur ii. Jind iii. Narwana iv. Malerkotla v. Barnala
18.	SIMLA	..	..	i. Simla

APPENDIX

TABLE I. Districts and Tehsils of Punjab State—(Continued)

Districts				Tehsils	
7.	HISSAR	..	..	..	i. Bhiwani ii. Fatehabad iii. Hansi iv. Hissar v. Sirsa
8.	HOSHIARPUR	..	..	..	i. Hoshiarpur ii. Dasuya iii. Garhshankar iv. Una
9.	JULLUNDUR	..	..	..	i. Jullundur ii. Nakodar iii. Nawanshahar iv. Phillaur
10.	KANGRA	..	..	..	i. Kangra ii. Dera Gopipur iii. Hamirpur iv. Kulu v. Nurpur vi. Palampur
11.	KAPURTHALA	..	..	..	i. Kapurthala ii. Phagwara
12.	KARNAL	..	..	..	i. Karnal ii. Kaithal iii. Panipat iv. Thanesar
13.	LUDHIANA	..	..	..	i. Jagraon ii. Ludhiana iii. Samrala

APPENDIX

TABLE 3. Temperature Variations in the Punjab

Station	Mean maximum temperature		Mean minimum temperature		Temperature	
	May	June	Dec-ember	Janu-ary	Highest	Lowest
Simla	72·1	73·1	39·3	35·9	94·4 (May)	17·1 (Feb.)
Hissar	106·5	106·8	42·8	42·7	121·1 (May)	29·0 (Jan.)
Ambala	103·7	102·7	43·1	43·3	117·6 (May)	30·7 (Feb.)
Ludhiana	103·9	104·7	44·4	44·4	119·0 (May)	24·0 (Dec.)

TABLE 4. Distribution of Rainfall in the Punjab

District	Monsoon			Winter	Annual
	June to			December to	(inches)
	September			March	
	(inches)			(inches)	
Hissar	12	21		1	15
Rohtak	16	80		2	19
Gurgaon	18	89		1	22
Karnal	18	44		2	22
Ambala	27	87		4	34
Kangra	47	11		9	59
Hoshiarpur ..	24	26		5	31
Jullundur ..	19	56		4	25
Ludhiana	19	48		3	24
Ferozepur ..	11	22		2	14
Amritsar	16	35		3	21
Gurdaspur ..	26	94		6	35
Simla	29	78		9	45

APPENDIX

TABLE 2. Area and Population of Districts of the Punjab (1951)

Districts					Area (sq. miles)	Population
Hissar .. .. .	..	..	..	..	5,389	10,45,645
Rohtak .. .. .	..	..	..	..	2,329	11,22,046
Gurgaon .. .. .	..	..	..	..	2,358	9,67,664
Karnal .. .. .	..	..	..	..	3,077	10,79,379
Ambala .. .. .	..	..	..	..	2,019	9,43,734
Simla .. .. .	..	..	..	..	8.5	46,150
Kangra .. .. .	..	..	..	..	9,945	9,36,042
Hoshiarpur .. .. .	..	..	..	..	2,227	10,91,986
Jullundur .. .. .	..	..	..	..	1,331	10,55,600
Ludhiana .. .. .	..	..	..	..	1,279	8,08,105
Ferozepur .. .. .	..	..	..	..	4,107	13,26,520
Gurdaspur .. .. .	..	..	..	..	1,366	8,51,294
Amritsar .. .. .	..	..	..	..	1,942	13,67,040
Patiala .. .. .	..	..	..	..	1,590	5,24,269
Kapurthala .. .. .	..	..	..	..	631	2,95,071
Bhatinda .. .. .	..	..	..	..	2,313	6,66,809
Mohindergarh .. .. .	..	..	..	..	1,357	4,43,074
Fatehgarh Sahib .. .. .	..	..	..	..	526	2,37,397
Barnala .. .. .	..	..	..	..	1,304	5,36,728
Sangrur .. .. .	..	..	..	..	1,648	6,42,934
Kohistan .. .. .	..	..	..	..	709	1,47,403
<i>Total</i> .. .. .	..	..	..	..	47,456	1,61,34,890

APPENDIX

TABLE 6. Area under and Production of Principal Field Crops in the Punjab (1956-57)

District	Sugarcane		Cotton		Oilseeds	
	Area (000 acres)	Produc- tion (000 tons)	Area (000 acres)	Produc- tion (000 tons)	Area (000 acres)	Produc- tion (000 tons)
Hissar	15	16	139	93	153	20
Rohtak	78	115	46	30	35	5
Gurgaon	18	17	4	2	83	12
Karnal	53	54	81	47	75	12
Ambala	62	50	21	8	13	1
Kangra	3	2	2	..	20	(b)
Hoshiarpur ..	38	31	20	8	7	(b)
Jullundur ..	37	53	52	27	2	(b)
Ludhiana ..	20	23	79	40	5	..
Ferozepur ..	12	14	380	238	58	10
Amritsar ..	33	36	96	49	56	11
Gurdaspur ..	36	37	11	5	10	(b)
Bhatinda ..	4	5	218	124	71	14
Kapurthala ..	14	19	10	6	(a)	(b)
Mohindergarh ..	..	..	..	..	43	6
Patiala	29	29	66	28	19	3
Sangrur	35	38	190	95	85	14
Simla	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
<i>Total</i>	487	539	1,415	800	735	108

APPENDIX

TABLE 5. Classification of Land in the Punjab (1955-56)

Classification of land	Area (1,000 acres)
Geographical area	30,119
Forests	843
Land put to non-agricultural uses	1,642
Barren and unculturable land	6,139
Permanent pastures and other grazing lands	378
Land under miscellaneous tree crops and groves not included in net area sown	88
Culturable waste	1,915
Fallow lands other than current fallows	54
Current fallows	1,436
Net area sown	17,794
Total cropped area	23,500
Area sown more than once	5,706

APPENDIX

TABLE 6. Area under and Production of Principal Field Crops in the Punjab (1956-57)—(Concluded)

District	Paddy		Maize		Millets (Bajra and Jowar)	
	Area (000 acres)	Produc- tion (000 tons)	Area (000 acres)	Produc- tion (000 tons)	Area (000 acres)	Produc- tion (000 tons)
Hissar	25	9	1	(b)	934	78
Rohtak	7	2	5	3	550	54
Gurgaon .. ..	..	..	1	(b)	420	39
Karnal	141	47	73	37	219	19
Ambala	60	18	84	43	26	(b)
Kangra	121	42	198	134	..	..
Hoshiarpur ..	40	16	168	76	17	2
Jullundur ..	4	1	74	73	11	1
Ludhiana ..	2	1	70	67	9	1
Ferozepur ..	85	35	34	22	72	8
Amritsar ..	81	39	68	43	26	3
Gurdaspur ..	91	38	51	32	13	1
Bhatinda ..	..	..	10	6	146	25
Kapurthala ..	23	10	22	14	4	..
Mohindergarh ..	..	..	..	..	136	23
Patiala	40	14	85	61	5	(b)
Sangrur	12	5	65	40	260	29
Simla	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
<i>Total</i>	732	277	1,009	651	2,848	283

(a) = Area less than 500 acres.

(b) = Production less than 500 tons.

N.A. = Figures not available.

APPENDIX

TABLE 6. Area under and Production of Principal Field Crops in the Punjab (1956-57)—(Continued)

District	Gram		Barley		Wheat	
	Area (000 acres)	Produc- tion (000 tons)	Area (000 acres)	Produc- tion (000 tons)	Area (000 acres)	Produc- tion (000 tons)
Hissar	1,340	430	67	26	255	144
Rohtak	569	185	17	9	323	154
Gurgaon	408	156	114	48	177	78
Karnal	476	208	16	7	399	196
Ambala	182	65	9	4	214	75
Kangra	24	4	32	8	298	74
Hoshiarpur ..	141	41	4	1	316	92
Jullundur ..	111	41	1	..	273	113
Ludhiana ..	136	50	5	2	267	139
Ferozepur ..	650	174	69	20	775	313
Amritsar ..	157	51	7	2	359	117
Gurdaspur ..	59	15	18	6	293	74
Bhatinda ..	676	203	51	14	342	158
Kapurthala ..	30	11	2	1	107	33
Mohindergarh ..	446	86	48	16	14	6
Patiala	114	44	31	10	252	120
Sangrur	675	190	42	18	476	228
Simla	N.A.	N.A.	N.A.	N.A.	N.A.	N.A.
<i>Total</i>	6,194	1,954	533	192	5,140	2,114

APPENDIX

TABLE 8. Districts and Tehsils of Himachal Pradesh

District					Tehsils	
1. MAHASU	..	..	..	..	i. Rampur	
					ii. Rohru	
					iii. Chini	
					iv. Jubbal	
					v. Chopal	
					vi. Theog	
					vii. Arki	
					viii. Solan	
					ix. Kasumpti	
					x. Kumarsain	} Sub- tehsils
					xi. Suni	
					xii. Kotkhai	
2. SIRMUR	..	..	..	..	i. Nahan	
					ii. Pachhad	
					iii. Rainka	
					iv. Paonta	
3. MANDI	..	..	..	..	i. Sadar	
					ii. Mandi	
					iii. Karsog	
					iv. Sundernagar	
					v. Jogindernagar	
					vi. Sarkaghat	
					vii. Chachiot	
4. CHAMBA	..	..	..	..	i. Chamba	
					ii. Chura	
					iii. Bhattiyat	
5. BILASPUR	..	..	..	..	i. Bilaspur	
					ii. Ghumarwin	

APPENDIX

TABLE 7. Area (acres) under Fruits in the Punjab (1954-55)

District	Apple			Banana	Citrus	Mango	Peach and pears	Other fresh fruits
Hissar	4,578
Rohtak	4	..	410	10	2,249
Gurgaon	509	..	..
Karnal	444	..	..	1,370
Ambala	10,030	..	359
Simla	6	..	..	..	3	..
Kangra	539	40	..	240	109	659
Hoshiarpur	5,078	..	1,019
Jullundur	467
Ludhiana	122	..	249
Ferozepur	2,525
Amritsar	3,932
Gurdaspur	913	..	59	1,226
Bhatinda	N.A.	N.A.	..	1,000
Kapurthala	N.A.	N.A.	..	N.A.
Nalagarh	N.A.
Patiala	N.A.	N.A.	N.A.	..	2,000
Sangrur	N.A.	N.A.	N.A.	..	..
<i>Total</i>	545	44	1,357	16,389	181	21,633

N.A. = Figures not available.

APPENDIX

TABLE II. Classification of Land in Himachal Pradesh (1955-56)

Classification of Land	Area (1000 acres)
Geographical area	6,990
Forests	400
Land put to non-agricultural uses	87
Barren and unculturable land	72
Permanent pastures and other grazing lands	860
Land under miscellaneous tree crops and groves not included in net area sown	62
Culturable waste	100
Fallow lands other than current fallows	9
Current fallows	36
Net area sown	679
Total cropped area	1,047
Area sown more than once	368

APPENDIX

TABLE 9. Area and Population of Districts of Himachal Pradesh (1951)

District				Area (sq. miles)	Population	Density of population
Bilaspur				448	126,099	281
Chamba				3,135	176,050	56
Mahasu				4,721	330,614	70
Mandi				1,523	310,626	204
Sirmur				1,095	166,077	152
<i>Total</i>				10,922	1,109,466	102

TABLE 10. Distribution of Rainfall in Himachal Pradesh (1954)

District	Monsoon June to September (inches)		Winter January to February (inches)	Annual total (inches)	Total number of rainy days
Bilaspur		40.97	12.00	57.72	54.00
Sirmur		63.76	9.97	76.22	72.40
Mandi		62.03	14.45	72.46	77.22
Mahasu		30.75	14.27	50.70	73.48
Chamba		25.52	17.07	50.66	60.50

APPENDIX

TABLE 14. Districts and Tehsils of Jammu and Kashmir State before 1947 (including areas now occupied by Pakistan)

Districts					Tehsils	
1.	ANANTNAG	..	..	..	..	i. Sherikhas ii. Awantipura iii. Anantnag iv. Kulgam
2.	UDHAMPUR	..	..	..	..	i. Ramban ii. Kishtwar iii. Udhampur iv. Bhadrawah v. Ramnagar
3.	KATHUA	..	..	..	..	i. Jasmergarh ii. Kathua iii. Basoli
4.	KOTLI	..	..	..	..	i. Kotli ii. Mirpur iii. Bhimber
5.	GILGIT	..	..	..	..	i. Gilgit
6.	CHILAS	..	..	..	..	i. Chilas
7.	JAMMU	..	..	..	..	i. Akhnoor ii. Jammu iii. Ranbirsingh Pura iv. Samba
8.	POONCH	..	..	..	..	i. Bagh ii. Poonch iii. Sudhnuthi iv. Mandhar v. Thakiala Barawa
9.	BARAMULLA	..	..	..	..	i. Uttarmachpura ii. Baramulla iii. Sripratapsinghpur
10.	MUZZUFFARABAD	..	..	..	..	i. Karnabad ii. Muzzuffarabad iii. Uri
11.	REASI	..	..	..	..	i. Rampur ii. Reasi
12.	LADAKH	..	..	..	..	i. Skardu ii. Kargil iii. Lch
13.	GILGIT WAZIRAT	..	..	..	..	—

APPENDIX

TABLE 12. Area under and Production of Principal Crops in Himachal Pradesh (1957-58)

Crops	Area (000 acres)	Yield (000 tons)
Wheat	312·806	79·380
Maize	285·401	68·162
Rice	110·179	34·640
Barley	76·775	13·304
Millets	60·909	10·698
Ragi	38·319	8·135
Gram	17·554	2·202
Other pulses	46·264	4·861
Potato	0·535	....
Sugarcane	3·421	19·659
Ginger	3·241	0·482
Chillies .. .. .	....	....
Rape and Mustard	9·131	....
Linseed	2·297	....
Sesamum	1·681	0·150
Tea .. .. .	....	....
Tobacco	1·960	0·330
Cotton	1·042	0·347

TABLE 13. Area under Fruits in Himachal Pradesh during 1955-56

Fruits	Area (acres)
<i>Fresh fruits</i>	
Apples	362
Grapes	37
Bananas	79
Citrus fruits	140
Mangoes	189
Peaches and pears	13
Other fresh fruits	1,706
Total fresh fruits	2,526
<i>Dry fruits</i>	
Cashew nuts	1
Other dry fruits	297
Total dry fruits	298
Total fresh and dry fruits	2,824

APPENDIX

TABLE 16. Area and Population of Districts of Jammu and Kashmir State (1951)

District					Area (sq. miles)	Population
Jammu	..	..	..	..	1,147	403,000
Kathua	..	..	..	..	2,812	165,000
Udhampur	..	..	..	..	5,165	210,000
Rajouri	..	..	..	..	1,706	195,000
Doda	..	..	..	..	3,142	216,000
Jammu Province (Total)	..	..	..	..	13,972	1,189,000
Baramulla	..	..	..	..	3,317	543,000
Anantnag	..	..	..	..	2,071	597,000
Srinagar	..	..	..	..	743	539,000
Kashmir Province (Total)	..	..	..	..	6,131	1,679,000
Frontier District (Ladakh)	..	..	..	..	37,240	80,000
Area under occupation of Pakistan	..	..	..	..	28,518	N.A.
<i>Total</i>	..	..	..	..	85,861	2,948,000*

N.A. = Figures not available.

* Excluding population in areas occupied by Pakistan.

APPENDIX

TABLE 15. Districts and Tehsils of Jammu and Kashmir State, excluding Areas Occupied by Pakistan

Districts					Tehsils	
KASHMIR PROVINCE						
1.	SRINAGAR	..	..	..	..	i. Khas ii. Badgam iii. Srinagar
2.	BARAMULLA	..	..	..	..	i. Baramulla ii. Sopore iii. Handwara iv. Uri v. Karnah
3.	ANANTNAG	..	..	..	..	i. Anantnag ii. Kulgam iii. Pulwama
4.	LADAKH	..	..	..	..	i. Ladakh ii. Kargil
JAMMU PROVINCE						
1.	JAMMU	..	..	..	..	i. Jammu ii. Samba iii. Akhnoor iv. Ranbirsingh Pura
2.	KATHUA	..	..	..	..	i. Jasmergarh ii. Kathua iii. Basoli
3.	UDHAMPUR	..	..	..	..	i. Udhampur ii. Ramnagar iii. Reasi
4.	DODA	..	..	..	..	i. Doda ii. Kishtwar iii. Bhadarwah iv. Ramban
5.	RAJOURI	..	..	..	..	i. Havali ii. Mondhar iii. Nowhera iv. Rajouri

APPENDIX

TABLE 18. Area under and Production of Food Grains in Jammu and Kashmir* (1957-58)

District	Paddy		Wheat		Maize	
	Area (acres)	Production (md.)	Area (acres)	Production (md.)	Area (acres)	Production (md.)
Srinagar ..	54,274	10,85,480	20,406	1,22,448	23,619	1,88,952
Anantnag	97,149	19,42,980	25,051	2,00,408	42,021	3,36,168
Baramulla	89,415	17,88,300	19,333	1,54,664	63,442	5,07,536
Ladakh ..	Not grown	Not grown	7,976	63,808	Not grown	Not grown
Kathua ..	26,340	4,21,440	41,008	2,87,056	19,221	1,53,768
Jammu ..	44,989	7,19,824	1,08,654	7,60,578	22,265	1,78,120
Udhampur	15,265	2,44,240	31,156	1,86,936	57,055	4,56,440
Doda ..	8,139	1,30,224	14,943	1,04,601	42,824	3,42,592
Rajouri ..	16,910	2,67,560	34,813	2,43,691	72,630	5,81,040
<i>Total ..</i>	<i>3,52,481</i>	<i>66,00,048</i>	<i>3,03,340</i>	<i>21,24,190</i>	<i>3,43,077</i>	<i>27,44,616</i>

* Figures for area under occupation of Pakistan not available.

APPENDIX

TABLE 17. Classification of Land in Jammu and Kashmir* (1955-56)

Classification of Land	Area (000 acres)
Geographical area	54,951
Forests	1,398
Land put to non-agricultural uses	763
Barren and unculturable land	909
Permanent pastures and other grazing lands	315
Land under miscellaneous tree crops and groves not included in net area sown	79
Culturable waste	261
Fallow lands other than current fallows	293
Current fallows	372
Net area sown	1,533
Total cropped area	1,840
Area sown more than once	307

* Figures for area under the occupation of Pakistan not available.

APPENDIX

TABLE 19. Area (acres) under Fruits in Jammu and Kashmir* (1955-56)

District	Mango	Citrus	Bananas	Grapes	Pome fruits	Other fruits	Total fresh fruits
Jammu	191	325	..	..	180	..	696
Udhampur ..	58	..	17	1	..	22	98
Doda .. ..	..	..	..	..	133	..	133
Kathua	266	49	18	..	..	39	372
Poonch .. ..	..	..	..	..	..	2	2
Srinagar .. ..	..	..	..	23	..	7,449	7,472
Anantnag .. ..	..	..	..	..	1,683	3,974	5,657
Baramulla ..	..	..	..	..	..	1,523	1,523
Ladakh .. ..	..	..	..	1	..	172	173
<i>Total</i>	515	374	35	25	1,996	13,181	16,126

* Figures for area under occupation of Pakistan not available.

APPENDIX

TABLE 18. Area under and Production of Food Grains in Jammu and Kashmir* (1957-58)—(Concluded)

District	Jowar		Buck-wheat		Minor Millets (Cheena and Kangni)	
	Area (acres)	Produc- tion (md.)	Area (acres)	Produc- tion (md.)	Area (acres)	Produc- tion (md.)
Srinagar ..	.. Not grown in Kashmir Province	Not grown in Kashmir Province	176	1,408	504	4,032
Anantnag ..	.. —do.—	—do.—	338	2,704	155	1,240
Baramulla ..	.. —do.—	—do.—	738	5,504	2,706	21,648
Ladakh ..	.. —do.—	—do.—	1,390	9,730	235	1,580
Kathua ..	.. 65	260	..	..	15	105
Jammu ..	.. 880	5,280	..	..	15	105
Udhampur ..	.. 4	16	..	..	174	1,218
Doda ..	.. ..	..	..	..	4,528	35,079
Rajouri ..	.. 1	4	2,642	19,346	14	98
<i>Total</i> 950	5,560	5,284	38,692	8,346	65,105

* Figures for areas under occupation of Pakistan not available.

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